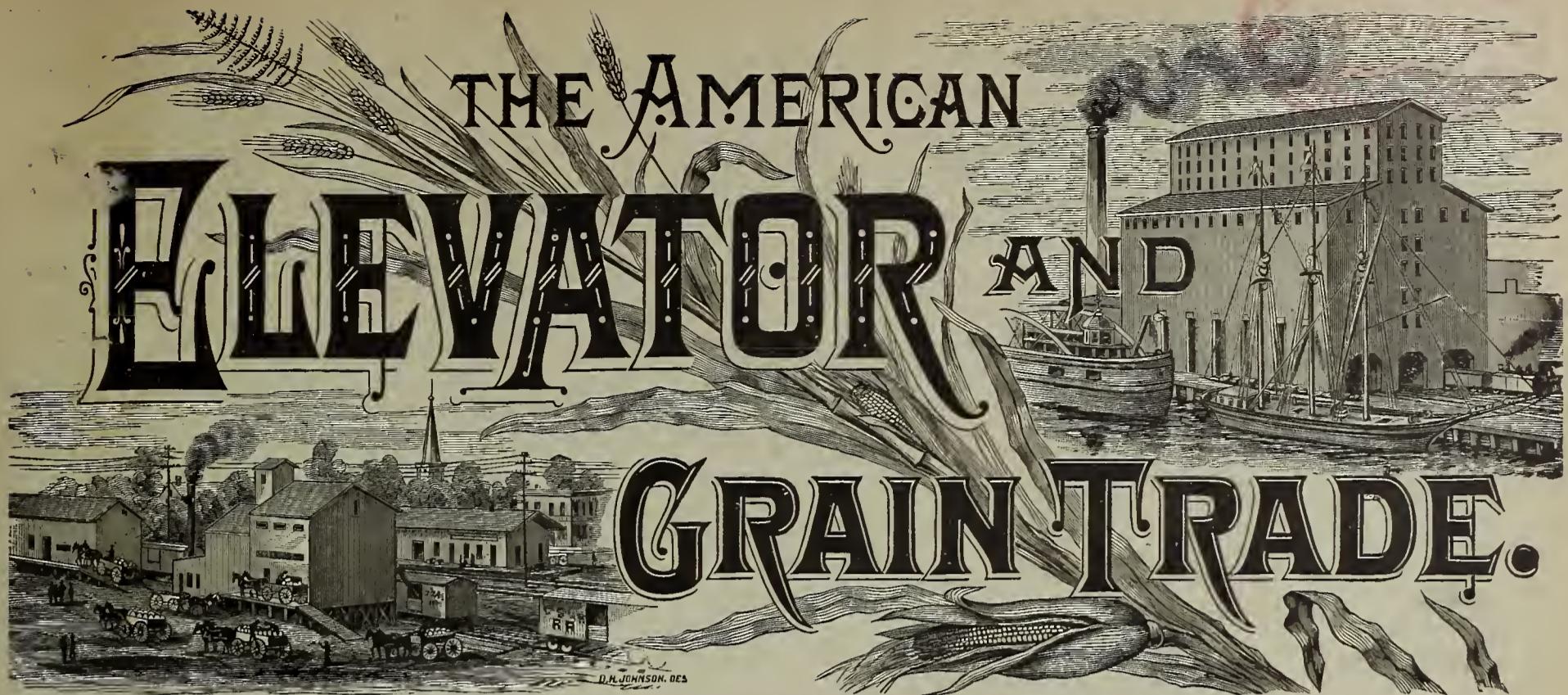


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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY, {
(INCORPORATED.)

VOL. XIII.

CHICAGO, ILLINOIS, AUGUST 15, 1894.

No. 2.

SUBSCRIPTION PRICE,
ONE DOLLAR PER ANNUM.

Excelsior Grain-Cleaning Machinery

CONSISTING OF THE

EXCELSIOR Dustless Warehouse and Elevator Separator,
EXCELSIOR Oat Clipper, EXCELSIOR Separator and Grader,
EXCELSIOR "Combined Grain Machine."

ALSO

PEASE DUSTLESS SEPARATORS and WAREHOUSE FANNING MILLS,
POWER CAR PULLERS, GASOLINE ENGINES, STEAM ENGINES, HORSE POWERS,
POWER TRANSMISSION MACHINERY,
GENERAL MILL AND ELEVATOR SUPPLIES.

**E. H. PEASE MFG. CO., RACINE,
WISCONSIN.**

GALDWELL
CONVEYOR
HORSE POWERS
WIRE ROPE
BELT TIGHTENERS

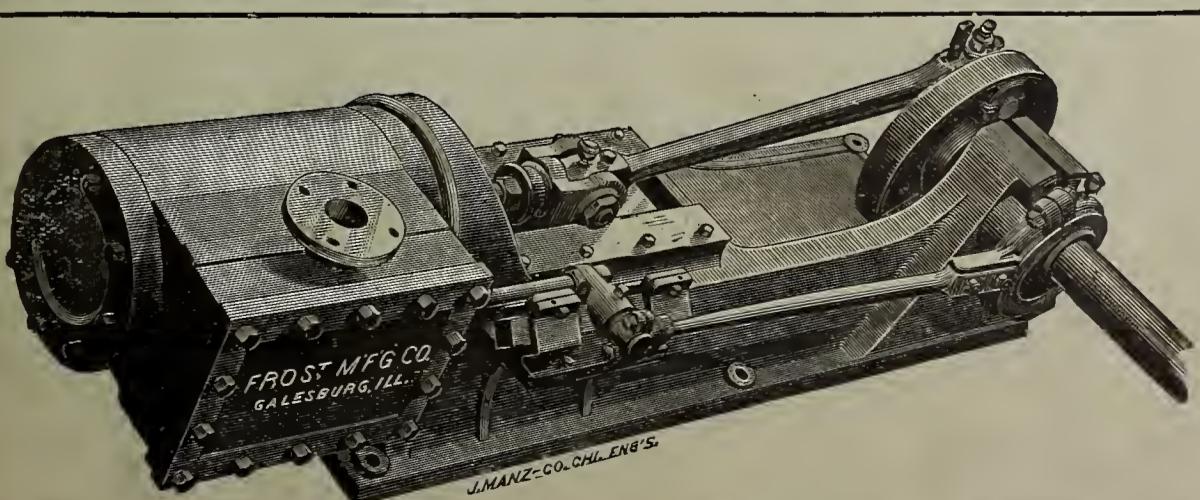


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THORNBURGH

MFG. CO.

110 Jefferson Street
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FOR PRICES AND DISCOUNTS
ON
Elevator Machinery
AND SUPPLIES
OF
EVERY DESCRIPTION,
EITHER STEAM OR HORSE-POWER,
The FROST MFG. CO.,
GALESBURG, ILL.

NOTICE.

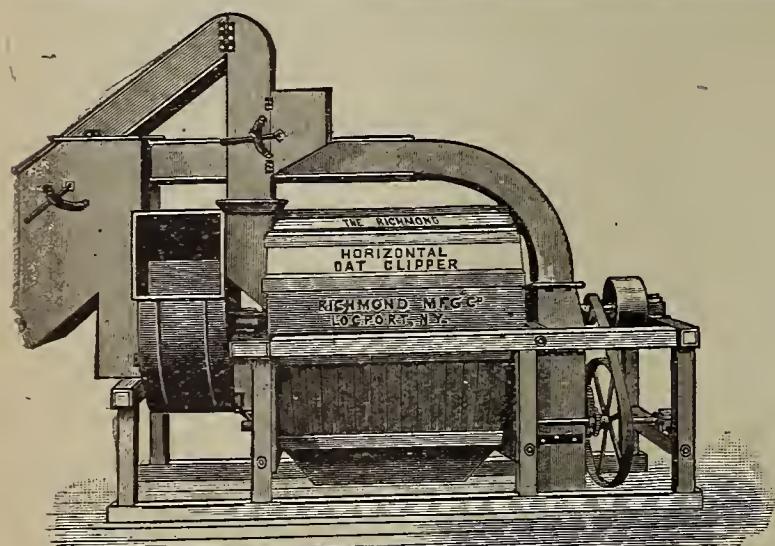
Important Decision Affecting Elevator Owners and Builders.

The Hon. Judge Grosscup of the Circuit Court of the United States for the Northern District of Illinois, on May 9, 1894, sustained the validity of the dust collector patents known as the "CYCLONE," and ordered a permanent writ of injunction against the defendants.

Infringing machines involved in these suits were built by the Vortex Dust Collector Co. of Milwaukee, and the Huyett & Smith M'g. Co. of Detroit, Mich., who themselves assumed and conducted the defense, through their own attorneys. **IF YOU HAVE USED, OR ARE USING INFRINGING MACHINES, YOU CAN SAVE MONEY BY PROCURING A LICENSE AT ONCE AND THUS AVOID LAW SUITS.** We must and will call a halt on pirates and users of piratical machinery, and we warn the trade thus frankly and publicly against the manufacture, sale or use of infringing machines, and it will be our duty to prosecute such infringements of our rights to the fullest degree and in the promptest manner.

The Knickerbocker Co., - Jackson, Mich.

A Wonderful Machine.



The Richmond Horizontal Adjustable Oat Clipper with Revolving Case.

WEST JEFFERSON STEAM FLOURING MILLS,

WEST JEFFERSON, OHIO, April 11, 1894.

RICHMOND MFG. CO., Lockport, N. Y.

GENTLEMEN:—Inclosed find check, covering bill of March 10, in full. The No. 0 Horizontal Adjustable Scourer and Polisher with Revolving Scouring Case is a wonderful machine, and we are more than pleased with its work. We have cleaned all kinds of wheat and must say that it cleans beyond our expectations.

Yours very truly, JOHN RENNER.

The Richmond Grain Cleaning Machinery and Dusters.

RICHMOND MANUFACTURING CO.,

Write for Catalogue.

LOCKPORT, N. Y., U. S. A.

"THE RACINE" DUSTLESS GRAIN SEPARATOR

Embodies More Points of Excellence

Than any other machine offered for similar purposes, and is **Light Running, Large in Capacity, Perfect in Separation and with Great Strength and Durability.** These machines have no equal. Adopted and indorsed by many of the largest Mills and Elevators in the country.

Made in different sizes to meet different requirements.

THE RACINE HEAVY WAREHOUSE MILL

Is especially adapted for horse power use, is supplied with **Patent Governor Pulleys**, has an even and steady speed, is built extra heavy and bolted throughout. This machine has large capacity and is more durable than any other Warehouse Mill made.

Send for our catalogue and prices before placing your orders.

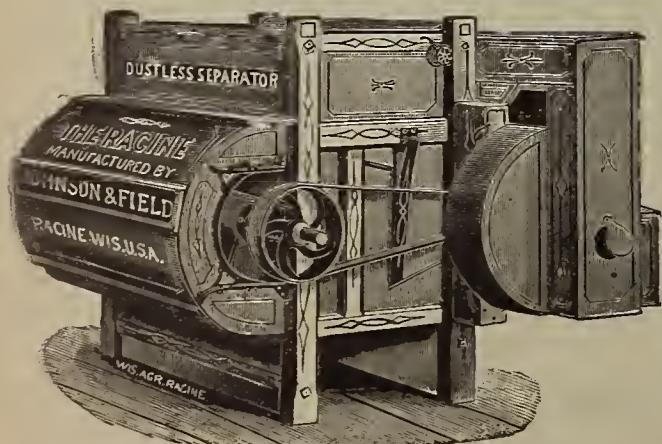
IMPROVED GASOLINE ENGINE.

Oil and Steam Engines from 1 to 100 Horse Power.

Elevator Machinery and Supplies,

Scales, Warehouse Trucks, Elevator Boots, Buckets and Bolts, Pulleys, Shafting, Belting, Grain Spouts, Etc.

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OUR SPECIALTY

Is to Furnish Every Description of

MACHINERY OR SUPPLIES

Required for the Equipment or Repairing of

GRAIN ELEVATORS

Such as:

**"SWEEP" and "TREAD" HORSE POWERS,
GAS ENGINES, OIL ENGINES, STEAM ENGINES.**

SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE SPOUTS.
LEATHER, RUBBER, COTTON AND LINK BELTING.
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS.
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"PLATFORM," "DUMP" AND "HOPPER" SCALES.
GRAIN SCOOPS, AND POWER GRAIN SHOVELS.

—ALL SIZES OF—

FARM AND WAREHOUSE FANNING MILLS.

GRAIN TESTERS, SEED TESTERS,
PERFORATED METALS, WIRE CLOTH,

Power Car Pullers, Oat Clippers, Dustless Receiving Separators,

POLISHERS, SEPARATORS, GRADERS,
FLAX REELS AND SPECIAL FLAX MILLS.
"OVERHEAD," "SWEEP" AND "TREAD" HORSE POWERS,
BAG-TRUCKS, WAREHOUSE TRUCKS, ETC.

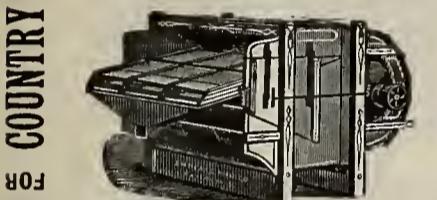
FOR
FAMOUS HAND OR POWER CLEANERS COUNTRY ELEVATORS.

The Successful Combination of 3 MACHINES IN ONE,

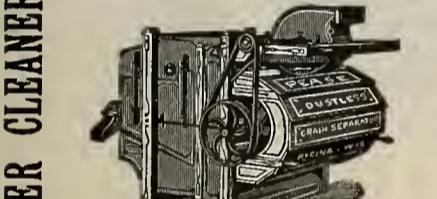
EXCELSIOR DUSTLESS ELEVATOR SEPARATOR,
Cleans, Separates and Grades Perfectly.
HAS NO SUPERIOR IN THE WORLD.



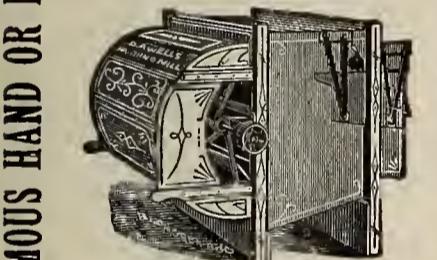
Pease Side Shake Mill for Warehouses.



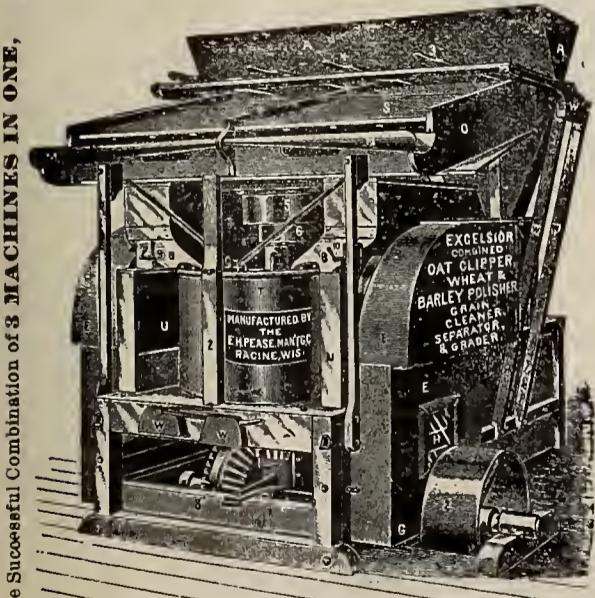
Pease End Shake Mill for Warehouses.



Pease Dustless Separator for Warehouses and Mills.



"Wells" Warehouse Mill.—Extra Large Capacity.



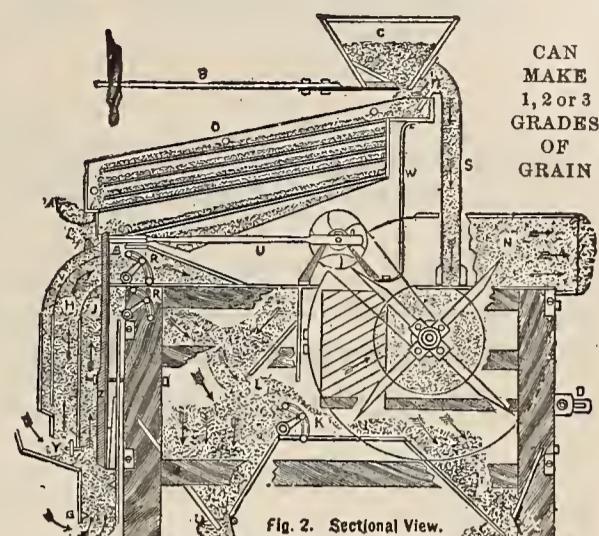
EXCELSIOR COMBINED

Oat Clipper, Polisher, Separator, Grader and General
Dustless Elevator Separator.

This Machine has no Legitimate Rival in the World.
Send for particulars.

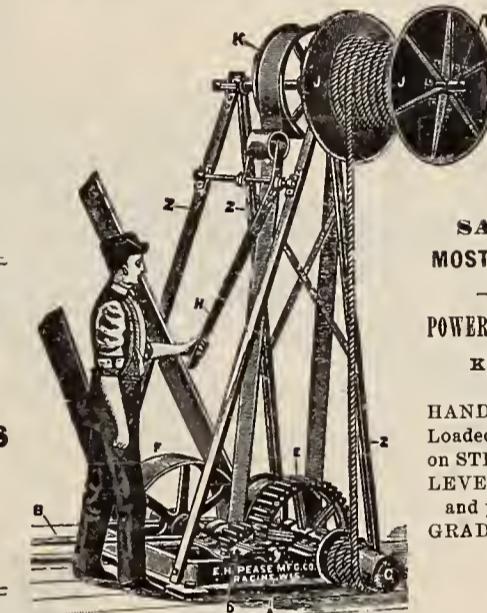
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THE
SUPERIORITY
OF THE
MATERIALS USED,
THE CONSTRUCTION and
Operating Qualities
OF ALL OUR
MACHINERY.

ADDRESS
—ALL—
LETTERS CAREFULLY
—TO—



EXCELSIOR SEPARATOR AND GRADER.

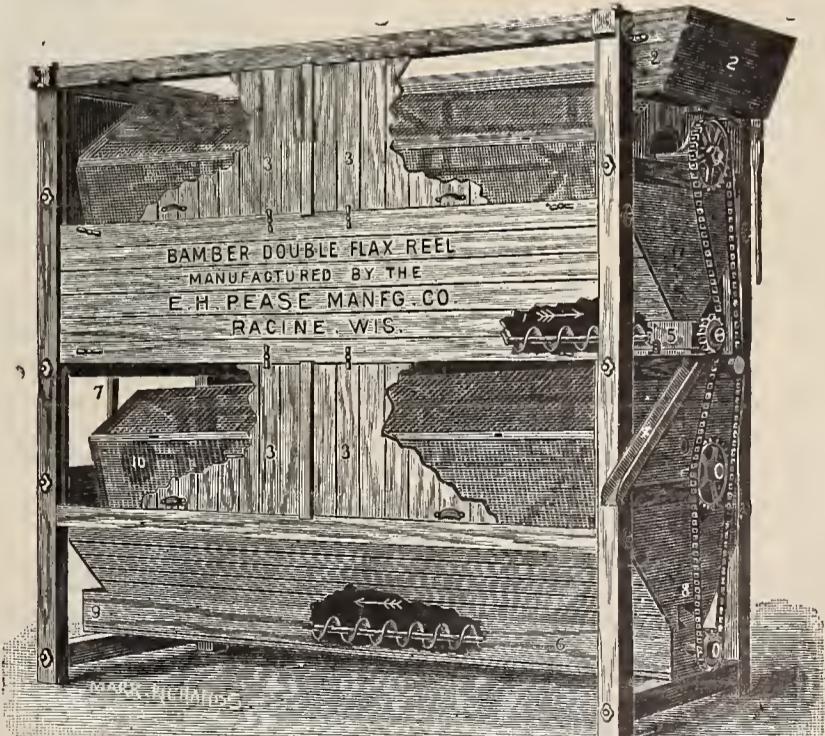
The Finest Wheat or Barley Machine on Earth



"HERCULES" POWER CAR PULLER.

OUR FLAX REELS

Are Adopted and in more General Use by
THE MOST EXTENSIVE FLAX HANDLERS
Throughout the United States, than any similar Machines made



Made with 1, 2 or 4 Reels in one Chest, and with or without
Scalping Shoe."

Reels of any desired style or dimensions made to order.

E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

BRANCH OFFICE, No. 6 CORN EXCHANGE, MINNEAPOLIS, MINN.

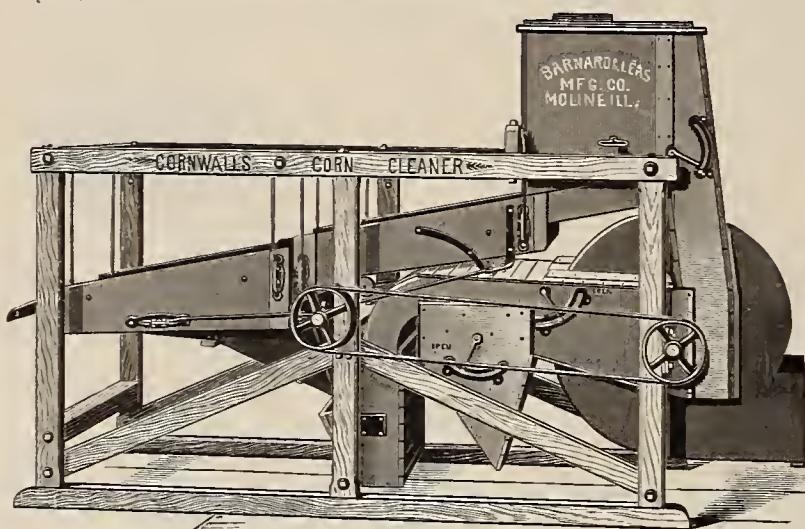
BARNARD & LEAS MANUFACTURING CO., MOLINE, ILLINOIS.

Sole Manufacturers of Barnard's Grain Cleaning Machinery.

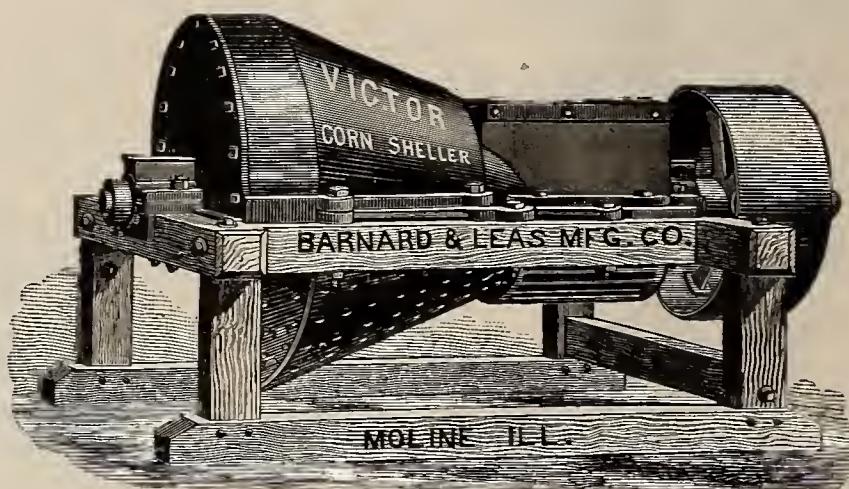
See these machines at work before purchasing.

The Barnard Grain Cleaning Machinery is built in a greater number of sizes, in a greater number of styles, and for a greater variety of uses in the mill and elevator than any other.

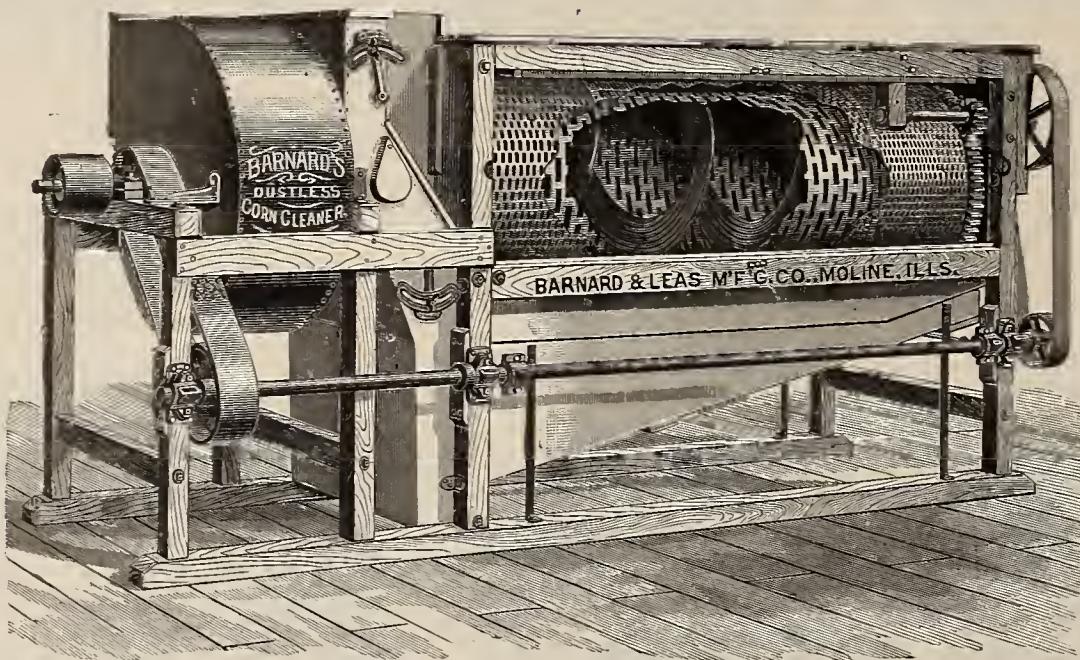
105 Barnard Cleaners were sold during the month of June for mills to be built and remodeled by us, for Elevators and Warehouses and incidental sales.



Cornwall Corn Cleaner.



Corn Sheller.



Double Screen Corn Cleaner.

SEND FOR SPECIAL CATALOGUE OF ELEVATOR MACHINERY.

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General Agent for Virginia, W. Virginia, Maryland
and North Carolina.

WM. R. DELL & SON, London, England.

EUREKA



Grain Cleaning Machinery

THE GREATEST VARIETY
THE LARGEST CAPACITY
THE LARGEST NUMBER AT WORK

} IN THE WORLD.

THE NEW IMPROVED

BY Far the
Best Separator
on the Market.

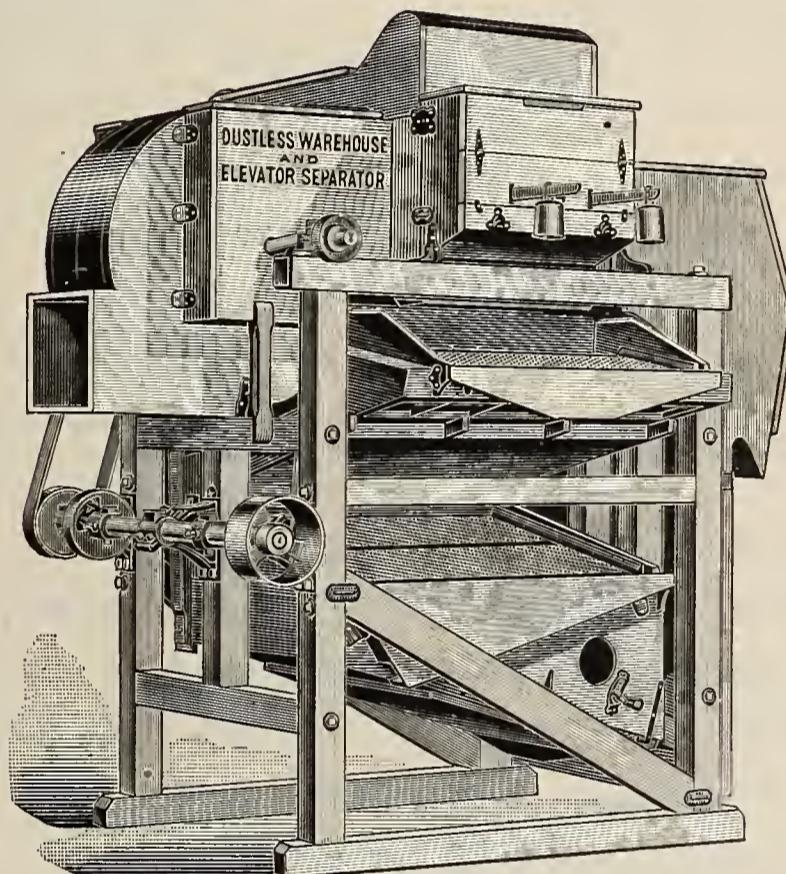
We make every part of this machine
under our own

PERSONAL SUPERVISION,
and are thus in a position to guarantee
it as to material and workmanship.

Will positively do more and better
work than any other Separator.

Wide Suction.
Perfect Separation under Control.
Interchangeable Screens.
Large Cockle Screen.
Automatic Feed.

Will run perfectly smooth and quiet.
Has large capacity.



WILL SHIP ONE ON 30 DAYS' TRIAL.

*Eureka
Warehouse
and
Elevator
Separator,*

WITH LATERAL-SHAKE
MOVEMENT
OF SCREENS.

Conceded by all to be the best arrangement for
ridding grain of impurities. Has Counter balances
and new Pitman Drive.

READ WHAT USERS SAY OF THEM:

CLYDE, N. Y., May 21, 1894.

MR. S. HOWES, Silver Creek, N. Y.

DEAR SIR:—I enclose you check for \$..... to
balance account for the Eureka Warehouse Sepa-
rator. I take pleasure in informing you that I am
much pleased with the machine, which has done
good work from the start.

Yours truly, GEO. B. GREENWAY.

YORK, Pa., July 18, 1894.

MR. S. HOWES, Silver Creek, N. Y.

DEAR SIR:—We are in receipt of your favor of
the 16th. The Warehouse and Elevator Separator
sold us by you is giving us great satisfaction. We
are not in the habit of recommending any ma-
chines, but must speak well of this one.

Yours truly, P. A. & S. SMALL.

Address **S. HOWES, Silver Creek, New York,**
SOLE BUILDER.

GRAIN CLEANERS.

IF YOU ARE IN NEED OF A PERFECT GRAIN
CLEANER, WE OFFER YOU

The Monitor Separator

These machines have stood the test and are pronounced by leading elevator operators superior to anything heretofore used. Their opinions are based on actual experience.

Nearly all of the leading cleaning elevators built during the last four years have adopted

THE MONITOR

They are simple, yet perfect in construction and durable.

They do the maximum of work with the minimum of power.

They have a powerful, but perfectly controlled air current.

They can be quickly adjusted to do any class of work desired.

They will give you grand satisfaction.

They are modern machines, and you will find them in all of the modern cleaning houses.

If you are interested in this line we ask you to investigate.

BARLEY.

We are making a special **BARLEY CLEANER**
that stands at the head.

FLAX.

Our **Monitor Flax Cleaner** will give you good
results. Close work with large capacity.

Huntley, Cranson & Hammond
SILVER GREEK, N. Y.

B. F. RYER, GENERAL AGENT, 799 MONROE STREET, CHICAGO.



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PUBLISHED BY
MITCHELL BROS. COMPANY, { VOL. XIII.

CHICAGO, ILLINOIS, AUGUST 15, 1894.

No. 2.

SUBSCRIPTION PRICE,
ONE DOLLAR PER ANNUM.

**H. H. SINDT & CO.'S ELEVATOR
AT DURANT, IOWA.**

We give herewith an illustration of the 50,000-bushel elevator of H. H. Sindt & Co. at Durant, Iowa. The elevator was erected in 1893 to take the place of the one burned in 1892. The building is 27x80 feet and 70 feet high with cupola. A covered driveway 12x40 feet contains two dumps for receiving grain from wagons. The building is covered with corrugated iron siding.

The elevator contains 8 storage bins 9x13 feet with a depth of 36 feet, and 2 storage bins 9x13 feet with a depth of 18 feet. There are 4 shipping bins, 9x13 feet, with a depth of 18 feet. The entire line of machinery was furnished by the Barnard & Leas Manufacturing Company. The first floor contains one No. 36 Barnard's Special Separator and one feed mill having a capacity of 50 to 75 bushels per hour. The second floor of the working end of house contains one warehouse scourer. On the third floor is one receiving separator. There are four stands of elevators. The grain is conveyed to the storage bins by a screw conveyor at the top of the elevator and from them by a screw conveyor in the basement.

The cleaning capacity of the machinery is about 1,000 bushels per hour. The machines are centrally located and arranged one above another. They can thus be reached easily and quickly from the first floor and great economy is gained in elevation. The receiving of wheat from either wagons or ears does not interfere in the least with the delivery of wheat to the shipping bins. A friction clutch is provided which makes it possible to disengage the cleaners when not in use.

The brick engine house is 28x24 feet in size and is separated from the main building by a distance of 8 feet. A saving of $7\frac{1}{2}$ per cent. is thereby made in the rate of insurance. The engine room contains one Atlas Engine of 45-horse power. The engine is coupled direct to the main shaft in the basement. An upright belt drives a countershaft on one of the upper floors from which all machines are driven. The shaft is provided with friction clutch coupling by means of which machines are stopped and started without stopping the engine.

On the next page will be found illustrations show-

ing the side and end elevations and plan of the basement. This house is of recent construction and of modern plan. It is conveniently arranged for the economical handling and cleaning of grain. Few small cleaning houses are arranged better. In the construction of the driveway the most approved method is employed. It is simply and strongly made, the floor being made of studding placed on edge.

The shipping bins and hoppers are very strong, the hoppering being constructed with the studding placed on edge, allowing the flow of material in the same direction with the grain of the wood. The construc-

**THE LAKE SHORE & MICHIGAN
SOUTHERN RY. CO.'S ELE-
VATOR SYSTEM.**

NO. II.

BY J. A. DEMUTH.

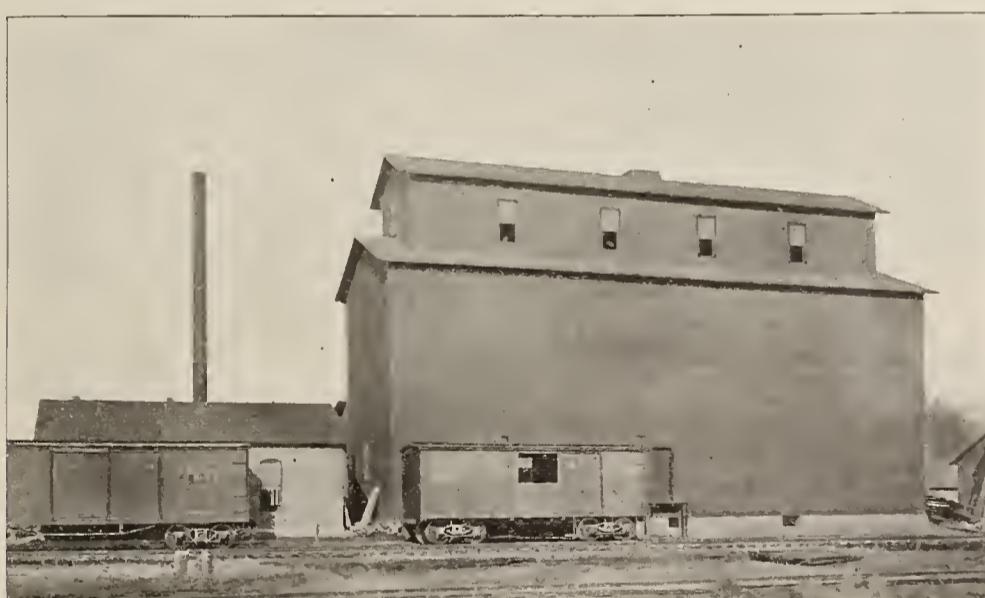
The largest number of this system of elevators have what must now be considered rather primitive methods of receiving grain. An elevated roadway on which teams are driven to the eaves of the elevator brings to the mind's eye a not very imposing structure in point of height and a decidedly stiff pull for a good

team of horses up the incline. If I were building an elevator of this class, I should do away with this incline, which is as unsightly as it is impracticable, and substitute a vertical hoisting apparatus to be operated by the team delivering the grain. At several of the larger grain stations there are elevators operated by steam; two at La Porte, the east and west houses, having a capacity of 41,200 and 44,600 respectively. At Ligonier there are steam elevators also, but of less capacity, the east house having a capacity of 26,250 and the west house of 21,850 bushels.

At one time in the history of these houses nearly all of the grain received into them was shipped to Toledo elevators. The erection of large mills at Ligonier and other points has cut off large supplies of wheat from the Toledo

market, the product of the fields being shipped East in the form of flour instead of grain. The original idea of this system of houses was the massing in Toledo elevators of the grain shipments from all points along the line of this road. And this was practically done for years. The entering wedge in the disruption of this plan was the appearance in the local markets of these towns of the Eastern buyers. As has been intimated, one of the disadvantages of this system to the farmer and buyer was the minimum of risk in inspection which the agent at the station would assume in inspecting grain into the company's houses. His samples from the Toledo elevators were of the highest standard. The least doubt in the agent's mind as to whether a lot was quite good enough for No. 2 Red was almost certain to result in the farmer getting his checks for No. 3 Red.

None of these elevators, including the terminal elevators at Toledo, have facilities for cleaning grain.



H. H. SINDT & CO.'S ELEVATOR AT DURANT, IOWA.

tion of these bins is shown by dotted lines in the drawing of the end elevation.

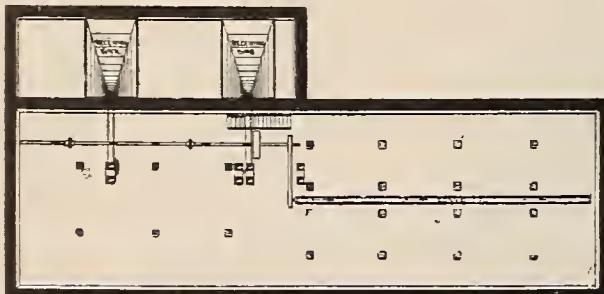
The firm of H. H. Sindt & Co. is well known throughout that section of country and enjoys a large patronage. More barley is handled than other grains. The members of the firm are H. H. Sindt, Theo. Sindt and Louis Stoltenberg.

The Senate Committee on Agriculture, Wednesday, agreed to permit Senator Washburn to favorably report the House Anti-Option Bill, the members reserving the right to oppose the bill when it shall come before the Senate. As reported, the bill will carry an amendment providing that the delivery of articles affected by the bill may be made at any place in the United States other than the point designated in the contract without incurring liability to the fine provided in the bill.

As a result the grain in the terminal elevators at Toledo was always up to and above grade. This fact was known by the Eastern grain buyers and while "Lake Shore grain" was holding an enviable reputation among Eastern millers, the buyers were finding their way into the local markets along the line of the Lake Shore, with the result that grain was soon being diverted from the Toledo market to Eastern elevators where the high quality of the grades proved to be a prolific source of shekels to the expert mixer. A nice point in this matter was the fact that the strict adherence by the railroad agents to the standard of grades furnished by the Toledo elevators was precisely the thing which was diverting the grain from the Toledo elevators to Eastern points. To be sure the "long haul rate" had something to do with the loss of receipts at Toledo; but the fact that this loss was nearly if not quite made good by augmented receipts from new tributaries to the Toledo market proves that the righteous grading of the agents and the dependence of Eastern buyers on the high quality of Lake Shore grain was the main factor in driving from grain stations to Eastern points the grain which naturally found its market in Toledo. For two or three years the receipts of grain from our regular grain stations was barely enough to remind us that we had a system of elevators, while at the same time receipts from smaller stations where there were no grain houses continued to be as heavy as ever before.

At the larger stations, as Ligonier, La Porte, Lansing, Bronson and others, the weighing out is done on track scales. At smaller stations where track scales are not required for other purposes the grain is drawn from the bins into a grain cart having a capacity ranging from about 950 pounds at some stations to 1,500 at others. This cart is weighed on scales which are let in flush with the floor, the weighman varying the drafts somewhat and recording the weight of each cartload. The cart is then run into the car and dumped. At the car door another man keeps a tally of the number of cartloads. Both tallies are turned in to the agent and one checked against the other. At some stations two carts of different capacity are used alternately, as for example, one of 1,000 pounds and the other of 1,400 pounds. The weights of each draft of the same cart varying only a few pounds. In this way in case of a discrepancy between the tallies when the car is finished the error can be easily located.

As a result of the many years these grain houses have been operated by the L. S. & M. S. Ry. Co. I conclude from my own observation that they are not a source of profit to the company. A palpable proof of the correctness of this observation is the fact that many of the houses, including one of the terminal elevators



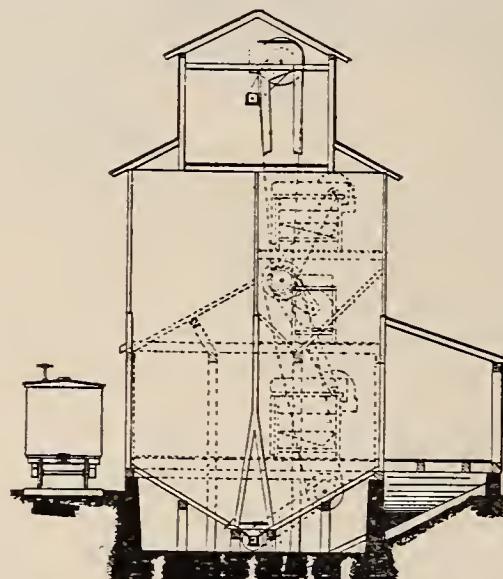
SINDT & CO.'S ELEVATOR—PLAN OF BASEMENT.

at Toledo, are leased to private parties and the company is quite ready to lease others.

The system has been greatly improved in recent years so that there is less friction in the accounts and fewer cases of muddled transactions on the part of agents. Daily reports of receipts and shipments are made from every grain station to the general grain department at Cleveland. The Toledo grain office reports back to the agent the corrected weight and grade, at the same time sending a copy of the receiver's expense bill to Cleveland. This expense bill shows Toledo weights, charges, grade, and so forth. All of the extensions in freight and elevating charges, reductions of pounds to bushels and storage charges are carefully revised in the general grain department in Cleveland. The system, while somewhat complicated, is effective, and very effectually accounts for every pound of grain and every cent of money.

The duplex check system which was instituted and perfected by Mr. Ed. Couch, the general grain accountant at Cleveland, deserves special mention, as it

very effectually closed a defective spout through which much grain was never received from the farmers notwithstanding the company's receipt was issued in regular form and fashion. These checks are furnished the weighman in books and numbered consecutively. They become questionable if they are held by the person delivering the grain for a longer time than is required for him to reach the office where the check is exchanged for a regular receipt. The grade and weight are punched out of both tickets so that the weighman, who retains the duplicate and returns it to the agent, charges himself with whatever amount he gives the farmer credit. These checks are good for the day only on which they are issued, and must be exchanged for a regular receipt by the person who has actually delivered the grain. The receipt is sold and indorsed over to one of the regular buyers who delivers them for a regular shipping order when he is ready to order the grain shipped out. At



SINDT & CO.'S ELEVATOR—END ELEVATION.

some of the stations the buying is all done by one or two persons to whom the grain house is divided up, but if a third buyer or a fourth or fifth comes into the field the original buyers must give up their bins, or, what follows when there are more than one or two buyers at a station, they must submit to inspection by the agent, who then bulks grain of same grade without respect to owners. It is thus seen that the company is careful not to favor one buyer more than another so long as it has charge of the house.

There are many reasons, it seems to me, why this system of railroad grain houses should be extended and elaborated rather than abandoned or placed into the hands of private individuals. Instead of Farmers' Elevator Companies for the purpose of controlling the flow of grain into the markets why should not the railroad companies and the farmers unite in some plan by which grain could be stored in railroad warehouses at a minimum charge for storage, the warehouse issuing receipts for quantity and grade and assuming all risks in weight and grade? This would necessitate terminal elevators for every railroad or co-operation with some connecting road which had elevators, but it would keep the elevator business where it naturally belongs. In these days of one rate for all the farmer may as well sell in one market as another, and if a Farmers' Association can be organized, and work in connection with the railroad company which naturally receives their grain, a whole flock of birds might be killed by a very few stones. First, the railroad company could depend on all the grain raised by the members of the association. Second, the farmers could store their grain and hold as much of it as possible and in this way realize higher prices. Third, by the farmers carrying some interest in the railroad warehouses, the rules governing the rate of storage and all other details in the management of the houses could be made subject to a board of arbitration.

Railroad companies should provide facilities for receiving grain for shipment. Why may they not go farther and by co-operation with those who contribute to their traffic furnish facilities for storage pending the owner's decision to ship? The Lake Shore system was for many years an ideal system. The "ground floor" in rates and the "mixing" art have been the chief factors in its deterioration. By the co-operation

plan every railroad company may have its system and every farmer may sell his own grain in his own time, and country dealers will be at no expense for elevator sites or houses.

[TO BE CONTINUED.]

DETECTING TRANSPOSITIONS IN ELEVATOR ACCOUNTS.

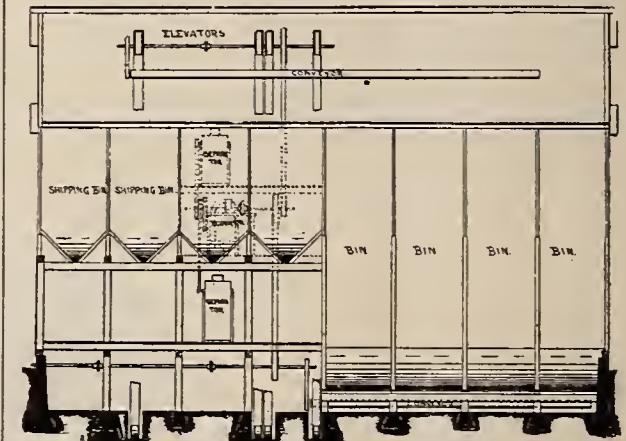
We are indebted to George B. Carter of the Counselman Elevator Company of Chicago for a few facts regarding an unaccountable mystery that will be of great value to everyone who has anything to do with accounts in grain elevators where the weighing is done on scales, the beams of which bear but one notch for every two pounds.

Mr. Carter has discovered that by using 4 as a common multiplier for corn and rye, 2 for barley, and 8 for oats, the transposition of figures used to indicate the pounds and those used to indicate any number of bushels up to and including 99 can be detected.

The weight of grain weighed on large scales the beams of which are graduated to weigh no amount less than two pounds will always be an even number. The weight of all grain received at public elevators as well as at many private houses is accurately recorded in books kept for that purpose. Some private houses discard the pounds and keep a record of even bushels only.

This insolvable mystery has to do only with those who keep a record of the pounds as well as the bushels. Everyone who has anything to do with accounts has learned that it is a very easy matter to transpose figures when writing a number. In writing amounts which require five figures to express, the first figure is very seldom incorrectly recorded, but the four last are often transposed. As, for instance, 878:04 is often written 887:04 in transferring from one record to another. This will throw the accountant's books out of balance, and when he makes his daily or weekly report of the stocks in store he must force a balance or his report will show a discrepancy in his accounts. The amount of the discrepancy caused by this transposition is only nine bushels, but how to find it without a day's work is a puzzle. Many an elevator accountant has disgraced himself and the rest of the human race by expressing himself in all kinds of terms about these small discrepancies.

By means of Mr. Carter's method transpositions can be detected easily without referring to the



SINDT & CO.'S ELEVATOR—SIDE ELEVATION.

original record. He has discovered that using the common multipliers mentioned to multiply the first figure on the right indicating bushels will give a sum, the last figure of which is the same as the first figure on the right in the pounds column. The transposition mentioned in the foregoing occurred in an amount of oats. For oats the multiplier used is 8, and by multiplying 7, the first figure on the right in the bushels column of the number 887:04, which is the amount recorded, by 8, we get 56. Now 6, the last figure of the product, is not the figure on the right in the pounds column, so we take the second figure in the bushels' column as a multiplicand and get 64 for a product. The first figure on the right of the product is the same as the first figure on the right in the pounds column, so we can rest assured that 7 and 8 were transposed. If the amount had been recorded 878:40 the transposition could have been detected just as easily.

To make sure that this mysterious system would prove effectual in detecting transpositions in the

weights from different elevators we secured the following amounts from the state registrar's books, which are the weights of grain received at different public elevators in Chicago:

Corn 4.	Rye 4.	Oats 8.	Barley 2.
233:02	494:36	1,190:20	603:36
223:52	510:20	2,241:28	541:42
538:32	631:24	1,183:04	775:20
93:42	997:28	912:16	697:34
4,755:30	493:12	1,528:04	774:28
1,662:38	596:14	1,195:30	798:46
2,334:46	2,129:16	897:06	819:38
993:42	892:08	878:04	596:22
3,761:44	975:20	956:08	695:30
842:08	798:12	1,004:12	817:24

The multiplier used to detect transpositions in the amounts of these grains is given at the top of each column.

Anyone who can prove that this system is defective or will not work in every case is welcome to the use of these columns.

Anyone who will give us a multiplier that will detect transpositions in the figures used to record the

pictions aroused. He then noticed that the bottoms of the sacks had wheat stuck over them, as if they had been standing in wheat when they were filled. Marks on the floor indicated that the sacks had been dragged across from one of the bins. The acting warehouseman declined to give out the wheat. The dealer took the hint, and disappeared, and is now being searched for.

On the whole, this new style of dealing in wheat is not likely to prove profitable to him.—*Oregonian, Portland, Ore.*

GREAT NORTHERN ELEVATOR "X" AT SUPERIOR.

Commercial centers are, it might be said, dependent upon nature for their becoming such. Superior, Wis., for instance, would never have attained its present importance in the grain shipping industry had it not been provided by nature with an almost perfect landlocked harbor. As it is, the extent of the grain handling industry of Superior was to be ex-

bushels. And since the establishment of the company and the erection of the first elevator their business has known a constant and steady increase.

THE SYSTEM OF GRAIN INSPECTION; ITS ESTABLISHMENT AND GROWTH.

NO. VI.

The grain dealers who had refused to pay inspection fees under the administration of Mr. Tompkins alleged as a reason for so doing that they did not care to have their grain inspected, and that the state had no right to enact a law which compelled them to pay for an inspection for which they did not ask. After all other measures had failed Chief Inspector Harper, by order of the Board of Warehouse Commissioners, resorted to the courts in order to enforce the payment of the fees. About thirty suits were brought and judgment was obtained in each case.

The close of the year ending October 31, 1874, saw,



THE GREAT NORTHERN ELEVATOR "X" AT SUPERIOR, WIS.

amounts of wheat will confer a great favor by doing so.

NEW WAY TO RAISE WHEAT.

Although wheat dealers here say there has been really no market for old wheat for 60 days, and that no price has yet been named for the new crop, an energetic and enterprising citizen of Polk county has arranged some transactions in wheat within a short time, which are likely to give him some prominence as a grain dealer. He went into the business by effecting an entrance to a warehouse from beneath, during the night, squeezing himself up through a hole made for the passage of a belt to drive machinery. He then proceeded to select a lot of sacks and fill them from one of the bins, and placed them in a corner. Next day the midnight visitor called again, when he knew that the warehouse keeper would be away from home, and told the man in charge that a farmer had agreed to leave so many sacks of wheat there for him, and that they were to be left in such a corner. The man in charge suspected nothing wrong, and passed out the wheat, which was hauled to another warehouse and sold at a clear profit.

A few nights after the farmer crawled into the warehouse again, and sacked up another lot of wheat. Next day he came around with a new story about a man having agreed to leave wheat there for him. The man in charge, on this occasion, had his sus-

pected, and a cessation of its growth in that line would be a surprise.

Typical of the many elevators that receive the grain of the Northwest at Superior, and belonging to a company which has been for some years a sound establishment of that city, is the Great Northern Elevator "X," which is in the foreground of the illustration of the Great Northern yards presented herewith.

Elevator "X," like the Great Northern "A," is most substantially constructed. It has all the latest improved facilities for the handling of grain, and a fine power and lighting plant in a detached brick house. The main building is iron clad and is surmounted with a cupola four stories high.

The greatest precautions have been taken against fire in the Great Northern houses, and such a thing as a disastrous blaze in its elevators would seem to be an impossibility. Night and day careful watchmen guard the property. Each floor of this elevator has its standpipe and hose, and in case a blaze starts water can be obtained on any floor in a minute's time.

A glance at the yards will give an idea of the unexcelled receiving facilities enjoyed by the company. In fact, the advantages are such that the great handling capacity of both of the houses is often tested to the utmost. Elevator "X" has a capacity of 1,500,000 bushels, the capacity of "A" being 1,800,000 bushels, which makes a total capacity of 3,300,000

the inspection department in a very satisfactory financial condition. The cash balance had grown from \$13,618.69 to \$30,254.25. The inspection fees had been twice reduced during the year, and, as the cash balance was still increasing, the commissioners decided that on and after Nov. 1, 1874, the fees charged for inspection should be 15 cents a carload for inspecting into and 25 cents per thousand bushels for inspecting out of elevators. The increase of the cash balance was not attributable to an increase of business, as the amount of grain inspected during the year was three million bushels less than in 1873, and seven million bushels less than in 1872. It was due to the close collection of the inspection fees and the economical administration of the department.

A system was inaugurated at this time for the better protection of holders of grain receipts. Additional men were appointed as receiving clerks, to be stationed at each elevator, whose duty it should be to make a daily report to the warehouse registrar of each car of grain, the kind and grade, which had gone into store. No unregistered receipts being recognized by the trade as regular, the warehouse registrar immediately thereafter gave notice that in future no receipts would be registered unless the returns of the receiving clerks showed that grain represented by the receipts had actually passed into store.

J. C. Smith succeeded W. H. Harper as chief inspector on May 6, 1875. The inspection fees were in

creased twice during his administration, remaining at the close for in-inspection 25 cents per carload and 40 cents per 1,000 bushels from canal boats. For out-inspection 40 cents per 1,000 bushels to vessels and 30 cents per carload to cars. Mr. Smith retired from office Aug. 15, 1877, and was succeeded by W. H. Swett, who occupied the position of chief inspector until November 1. On this date the duties of chief inspector were assumed by John P. Reynolds.

Up to this time the duty of supervising practically the work of inspection throughout the entire department for the purpose of maintaining uniformity of grades, was entrusted to a single individual, the first assistant. With the volume of business being done in 1878 and with the extension of the limits of the department so as to include the station at Forty-seventh street it became apparent that no one man, whatever his capability as an inspector, could discharge this important duty satisfactorily. In order to meet the new requirements one of the best local inspectors was placed on duty as assistant to the first assistant. A very notable and important change in the administration of the department as affecting it financially, if not otherwise, was that effected at this time by the law relating to the committee of appeals, which took effect July 1, 1879. Previous to this time the committee was paid by fees. Each of its three members received \$3 for each appeal, the department paying \$4 in every case when the appeal was not sustained and \$9 in every case when the appeal was sustained. Under the new law each member of the committee received \$1,000 per year. Mr. Reynolds completed his term of office on Sept. 5, 1882, and was succeeded by P. Bird Price.

Frank Drake succeeded Mr. Price as chief inspector on July 26, 1883. The most important change during his administration was made in September, 1884. It had been the custom to post on Change the daily receipts and shipments of grain at about 11 o'clock. This daily exhibit showed the inspection of the previous day and two or three hours' work on five lines of railroad on the same day, which often made the receipts seem very irregular, and led to erroneous estimates and false calculations. A new plan was adopted of posting the receipts and shipments at 9:30 o'clock, ten minutes before the opening of the board. The receipts and shipments thus posted included all and only the grain received and shipped the previous day up to 6 o'clock p.m., which harmonized with information obtained through other sources. During the year a change was made relative to "scalp grain." It was made the rule to inspect it on regular tracks in the regular way instead of at the house or "hospital" where cleaned. In this way the business of cleaning grain was placed upon a basis which put those engaged in it upon substantially the same footing as country dealers and shippers.

P. Bird Price succeeded to the office of chief grain inspector on July 25, 1885. It had always been a great difficulty in the proper management of a force of inspectors as large as that connected with the department to keep the work of the men at the different tracks uniformly upon the same line; and in order to do this two supervising inspectors were employed for years, whose duty it was to visit the different stations, observe the work of the men and detect and correct the least tendency to swerve from the established standards. These two men, having concurrent jurisdiction and authority, were not always in thorough accord in their interpretation of the rules, and as a consequence the men were not always as confident of their position respecting the standards as they should be. Believing that the work would go on more smoothly under the direction of one mind than of two, Mr. Price changed the system on Sept. 1, 1887, and with the concurrence of the Board of Commissioners placed the matter of supervision entirely in the hands of Wm. Smillie, whose sixteen years' service in the department and five years' experience

as supervising inspector had shown him to be thoroughly qualified for the place.

Geo. P. Bunker succeeded Mr. Price in the office of chief inspector on March 13, 1893. In October of that year a change was made in the rules of the department, which provided for the changing of inspectors, both on track and at elevators, as often as every sixty days. The change had a tendency to educate the inspectors and to give to the department a much better appearance. An inspector located on one railroad or in one elevator for months, and perhaps years, had no opportunity of learning or familiarizing himself with any other than the one kind of grain coming in over that one road. The grain from different states, and even different sections of one state, vary in character; and all having to be graded on their merits makes it necessary that the inspectors should be experts in order to do justice both to buyer and to seller. The number of men employed in the inspection department varies in proportion to the amount of grain being received and the time of the year. The force of the department at present consists of one chief inspector, one supervising inspector, one assistant inspector, thirteen second assistant inspectors, twenty-five third assistant inspectors, twenty-two helpers, two messengers, one chief clerk, one collector, one cashier, one stenographer, one sample clerk, one janitor, five clerks, three members of

THE NEW ERA GAS ENGINE.

Very great interest is being manifested in gas and gasoline engines at the present time, by users of power in all departments of manufacturing and business life requiring any kind of power. This is due to the fact that gas engines have been brought to a high state of proficiency, and because people are beginning to fully appreciate the advantages claimed for these engines. A gasoline engine is claimed to take the place of a heater, engine and all the other paraphernalia of a steam equipment. Where a power user can have all the power he needs without fire, water, steam, boiler insurance, boiler cleaning, boiler compound, coal, wood, ashes, engineer, fireman, and have it whenever he wants it merely by turning of a wheel, he will have it, if he thoroughly investigates the matter. Aside from these facts there is comparatively no expense in keeping up a gas engine.

The power is obtained by introducing gas and air properly mixed into the cylinder, where the piston compresses it and an explosion is produced either by an electric spark or ignition tube, when the expansion of gas drives the piston forward. The admission of gas is regulated by a governor which takes it only as often as is necessary to do the work required and keep up the power of the engine.

Two very heavy flywheels are used to keep up the momentum and make the power steady. The supply of gas is repeated, as above explained, as long as the engine is in use. When it is desired to stop the gas is merely turned off.

A gasoline engine does not differ from a gas engine except that the gasoline is introduced into the pipe through which the air is taken. With the "New Era" Engine the gasoline is sprayed into this pipe where it forms a gas that operates in all respects as other gas.

The explosion of gas in the cylinder would heat it to a high degree, but this is counteracted by a supply of water in a space or jacket around the cylinder.

There are five special features on the New Era Engine to which particular attention is called. First, heavy weight and slow speed, giving steady power with smooth, easy running. Second, the gas, air and exhaust valves, all controlled by positive mechanical movements, all timed and measuring to produce perfect results. Third, every movement on the outside in sight, and each one reached or adjusted by a single bolt. Fourth, every working part on a single lateral shaft operated by the crank shaft. Fifth, the result, simplicity, perfect work, full power and durability.

It is adapted to all power purposes, and particularly those requiring from 4 to 50-horse power. It can be set up in any room on any floor of a building where a reasonably strong foundation can be secured.

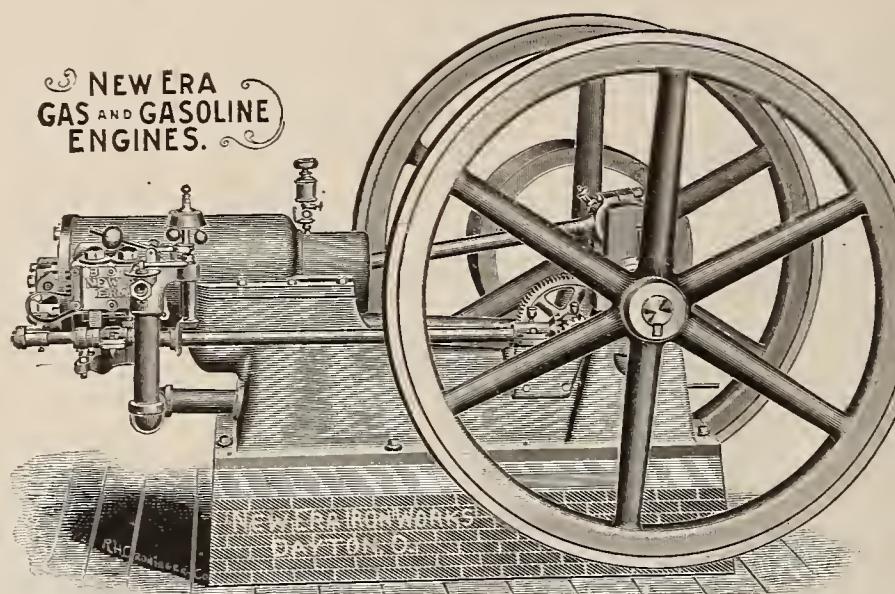
It costs less for fuel than any known method of producing power. With natural gas the cost is only nominal; with gasoline about $\frac{1}{4}$ -cent per horse power; with illuminating gas from $\frac{1}{4}$ -cent to 2 cents per horse power per hour, according to the price of the gas. These prices are based on running the engine to its full capacity. When less than full power is required it does not take gas so frequently, and, of course, burns less.

There is no expense for an engineer or fireman, nor for the handling of fuel and ashes. There is a saving both in the engine itself and in the shafting, pulleys, etc., by being able to use the power intermittently, there being absolutely no cost whatever while the engine is still, as there is no fire or steam to keep up that the power may be ready when wanted.

It can be used for any purpose for which power is used, and prospective buyers should carefully investigate the using of a gas or gasoline engine. It is a fact that where one of sufficient size is set up, where it is kept clean, and properly oiled, the power is never failing and entirely satisfactory.

The engine herewith illustrated is made by the New Era Iron Works of Dayton, Ohio, who will cheerfully furnish circulars, cuts and full description of their

NEW ERA
GAS AND GASOLINE
ENGINES.



THE NEW ERA GAS ENGINE.

the appeals committee and one driver for the appeals committee.

[TO BE CONTINUED.]

A GRAIN DEALER'S LUCK.

Three or four weeks ago, says the Lexington (Neb.) *Pioneer*, Robert Beath, a grain dealer at Overton, lost, while working about his mill and grain bins, a heavily cased, open-faced silver watch. Just where he lost the timepiece he could not tell, and as time rolled on he concluded it was gone for good. Such, however, was not the case. While Soren Larsen was looking over the wheat cleaner in the fourth story of the Lexington Mill he found the watch. The timepiece had been lost by Mr. Beath in a load of wheat. The Lexington Mill purchased a car of wheat from Mr. Beath, and the grain was unloaded from the car and carried through spouts and conveyors to the top story of the mill, and along with it went the watch until the cleaner was reached. Beyond a slight dent in the case and some abrasion of the crystal, the watch is all right, and started to running as soon as wound.

This year Iowa will certainly drop back from first place as a corn raising state. It has held first place every year since 1881, when it took the head of the list from Illinois. In the short crop year, 1890, when the whole country raised 1,490,000,000 bushels, Iowa had 232,000,000, and the three states, Iowa, Illinois and Missouri, raised 40 per cent. of the total crop of the country. Iowa's banner crop was 351,000,000 bushels, in 1891. The 1889 crop was 350,000,000 bushels. This year Iowa's crop will probably be exceeded by Illinois and Missouri.

engine with any further information concerning their use that may be desired. They will also make estimates on an engine for any purpose whatever, set it up on trial and with a full guarantee.

THE PNEUMATIC TRANSFER AND STEEL STORAGE ELEVATOR AT TOLEDO, OHIO.

The pneumatic process of handling grain and the use of fireproof steel tanks for storage have long been recognized as desirable in the grain business. The big fire at Toledo last winter, which destroyed some of the elevators and other valuable property, demonstrated, in a very convincing manner, the need of safer and better means of storing grain.

Messrs. Churchill and Coon, who were among the sufferers from the fire, determined, after a careful investigation of the practicability and the great apparent advantages to be secured by the use of pneumatic processes and methods for handling and treating grain and steel tanks for storing and protecting it, to avail themselves of the new system in rebuilding.

The result is the new plant which we show in our illustration, the property of the Iron Elevator Company of Toledo, and known as the "New Iron Elevator." It is located at the junction of Swan Creek and the Toledo, St. Louis & Kansas City (or Clover Leaf) Railroad, convenient to receiving and shipping by rail or water.

The work of construction was begun about the middle of April, and the first carload of wheat was successfully handled on July 30.

Mr. F. J. Weber of Toledo had full charge of the construction, and the plant was built from plans furnished by the Smith Pneumatic Transfer & Storage Company of Chicago, and in accordance with their system of pneumatic transfer and steel storage for cereals and seeds.

As will be seen by the illustration the plant consists of a main building, 30x40 feet and 80 feet high, constructed of steel beams and plates, with a brick and stone boiler house annex and two rows (only one of which is visible) of steel tanks, ten in all. The tanks are 28 feet in diameter and 35 feet high, having a capacity of about 18,000 bushels each, or 180,000 bushels in all. Other smaller tanks for shipping, etc., will bring the aggregate storage capacity up to 20,000 bushels.

The pneumatic machinery and appliances, motive power and accessories are located in the main building and annex and consist of a complete steam plant, which includes one engine of 100-horse power, two horizontal boilers of 60-horse power each, water heater, steam pumps, etc., one No. 7 Root's Blower and Exhauster with a capacity of 65 cubic feet per revolution; one steel receiver with a capacity of 16,600 bushels at one draught; one main line air pipe 24 inches in diameter and 60 feet long, one main line receiving pipe 12 inches in diameter and 75 feet long, for unloading cars, wagons or other vehicles; one main line receiving pipe 200 feet long for unloading vessels and canal boats, one main line discharge pipe 14 inches in diameter and 200 feet long, with branches for distributing grain to tanks, cars or boats, one set of scales of 50 tons' capacity, mouthpieces, blast pipes, valves and necessary connections.

The pneumatic process of elevating, conveying and handling the grain in receiving, distributing and shipping is extremely simple and somewhat similar to pumping water. The car, boat, wagon or other receptacle to be unloaded, being in convenient proximity to the transfer machinery, the receiving pipe attached to the receiver at one end and provided with a suitable mouthpiece at the other end is brought into contact with the grain to be removed. The valves in the receiving and exhaust pipes are then opened, those in the discharge pipe remaining closed, and the exhauster is put in motion by the engine. The action of the exhauster immediately produces a partial vacuum in the receiver, which now becomes a vacuum chamber, and the natural pressure of the atmosphere causes a flow of air through the receiving pipe. As the air enters the mouthpiece it is automatically mixed with the grain to be moved in such proportions as the strength of the air currents may determine, thus forming a semi-fluid which flows in a continuous

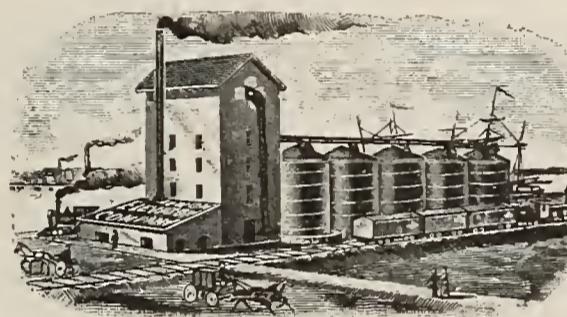
stream through the receiving pipe until it reaches the receiver or vacuum chamber.

The area of this chamber is so much greater than that of the receiving pipe that upon entering it the air currents instantly expand, their velocity is checked, and their carrying power weakened to such an extent as to cause a separation of the semi-fluid, the grain falling into and remaining in the receiver, while the air, having accomplished its duty, passes away clear and free through the exhaust pipe and exhauster.

As soon as the load has been received, or the receiver filled, the exhauster is stopped and receiving suspended. The receiver being suitably connected to scales, the weight of the grain in it may be taken at once or at any time previous to its removal.

To remove the grain from the receiver the discharge pipe is attached to the outlet opening at the lower end of the receiver and extended to the point at which the material is to be delivered. The valves in the discharge and exhaust pipes are opened, those in the receiving pipe being closed, the exhauster is reversed so as to act as a blower and put in motion, producing air currents of any required strength, which pass through the exhaust pipe, blast pipe and discharge pipe, the grain falls from the receiver into the air currents, passing through the discharge pipe, by gravity, and is delivered at the desired location with sufficient momentum to trim itself in cars, boats or other places, without the aid of shovelers or trimmers.

The advantages claimed for this system of transfer and storage are as follows: Less cost and smaller initial investment for plants of any size. Less expense to



THE NEW IRON ELEVATOR AT TOLEDO, O.

maintain and operate. Structures of greater durability, strength and safety. Absolute security from fire, lightning, storms, floods, etc., dispensing with insurance of all kinds. Perfect protection of grain or seeds stored from loss or damage by insects, vermin, oxidation, fermentation, evaporation, shrinkage or other injurious influences. Superior facilities for attracting and holding business. Good grain stored in air tight steel bins is the safest and best collateral security that can be found.

Great interest has been taken in the completion of the Toledo plant by those who are directly concerned in the grain trade all over the country, and it will doubtless be the Mecca for many a pilgrim seeking improvements in the methods of handling and storing cereals and seeds.

John T. White of Ada, Kan., says Kansas will feed 15,000,000 bushels of wheat to stock this year. The present large receipts are coming wholly from renters and share farmers. It will not continue much longer. The receipts will drop off short.

Canada has secured a large hay crop of excellent quality; but it should not be forgotten that a large proportion of the crop of 1893 is still in the hands of farmers, and that, in order to work it off, low prices will have to be accepted.—*Trade Bulletin, Montreal*.

A. H. Fletcher of Reader, Ill., says: The St. Louis Milling Company have put a lock and chain on their scales here, which means if they cannot buy wheat farmers cannot weigh on their scales. Last year they bought up all the scales, most all of them, and tried to control the price of wheat along the line. They made a difference of several cents a bushel between Reader and Carlinville. But as it is now, a new pair of scales has been put up, and while they bought one load of wheat, which is all they could get here, I have bought four carloads and another nearly loaded. I paid 2 cents a bushel more than they did and paid within 1 cent of Carlinville.

SITES FOR ELEVATORS ON RAILROAD RIGHT OF WAY.

In reply to a communication addressed to the Iowa Board of Railroad Commissioners regarding the legality of the charge for elevator sites on railroad rights of way, secured by condemnation suits, we have been informed that the Board of Railroad Commissioners of Iowa has never had a case presented that called for a decision on this point and no decision has been rendered by the courts which covers this point.

However, in the case of J. S. Wilson and others of Hills Siding, Johnson county, Iowa, vs. the B. C. R. & N. Ry. Co. the railroad commissioners gave opinions on several points which have a bearing on this question. Mr. Wilson asked that he might be allowed to put in scales and build cribs on the company's ground at that place, so that he might engage in the grain business. This was refused and he appealed to the commissioners, who in the opinion rendered said: As to the request made by the complainant, Wilson, that this board make an order requiring the defendant to furnish room for and permit him to erect on the right of way or depot grounds included therein, now owned by said defendant company, scales, office, cribs and warehouse, in the event that the board find there is room there for such facilities. The commissioners certainly can make no such order unless it is the duty of the defendant, under the law, to allow the complainant to do what he thus asks, and if this duty is imposed it must be under the provisions of some statute of this state, or arise under the principles of the common law, or some usage that has the force of law.

As to the rights of the public and the defendant in relation to station grounds, Hutchinson, in his work on carriers, uses the following language:

"The station is the private property of the company, subject to the right of the public to enter it for the purpose of travel upon the road, or to send or receive of their goods by it, or to transact other legitimate business there; but the privilege to enter for any other purpose is subject to the control of the company. * * * * But the law will not permit undue or unreasonable preferences to be given in the right to be admitted upon such grounds, among those who conduct themselves in an orderly manner, nor will exclusive privileges be allowed to some in plying their business there which are denied to others. Although such grounds may be private as to ownership, they are not so as to the purpose to which they are appropriated, and while they are used mainly with a view to the convenience of those who travel, or transport their goods by the road, still others against whom no special objections exist, should not be unreasonably or unequally excluded. Such discriminations are excluded by statute in England, and would, no doubt, be held unlawful in this country without statutory restrictions."

As to the duty of the carrier to furnish proper station facilities, the same writer says:

"The duty of the carrier extends also to the providing of proper and reasonable station facilities, such as platforms, warehouses, approaches and the like, and in case of a carrier of live stock, it includes the furnishing of proper yards, gates and other appliances necessary to enable the stock to be received, loaded, unloaded and delivered to the consignee. For performing this service the carrier cannot impose an extra charge, nor authorize or require some other person or corporation to perform it and insist upon extra compensation."

Justice Dillon, in deciding a case in our own Supreme Court, uses the following language:

"But I have no hesitation in saying that without any statute enacting it, there is a common law duty on these companies to provide reasonable accommodations at stations for the passengers who are invited and expected to travel on their trains."

The Supreme Court of the United States, in the case of Covington Stock Yards Company vs. Keith, says:

"A railroad company as a carrier of live stock is obliged to provide necessary means and facilities for receiving live stock offered to it for shipment and for its delivery to the consignee * * * * without charge for such facilities, * * * * and when a railroad company does not provide suitable facilities for the delivery of live stock contracted to be carried by it, it may be compelled to deliver through facilities furnished by the consignee."

Of course the duty to provide suitable facilities for the receiving and delivery of grain would be as great as in relation to live stock, or any other kind of freight, so commonly carried. [Exactly what this journal has always maintained.]

Chapter 77, section 10, of the acts of the Seventeenth General Assembly of this state, provides as follows:

"It shall be the duty of any railroad corporation, when within their power to do so, and upon reasonable notice, to furnish suitable cars to any and all persons who may apply therefor, for the transportation of any and all kinds of freight, and to receive and transport such freight with all reasonable dispatch, and to provide and keep suitable facilities for the receiving and handling the same at any depot on the line of its road."

The duty of a carrier under the common law as to treating all of its employers as patrons alike or with-

out any discrimination has been stated by Chief Justice Appleton of the Supreme Court of Maine, in language as follows:

"Common carriers are bound to carry indifferently within the usual range of their business, for a reasonable consideration, all freight offered and all passengers who apply. For similar equal services they are entitled to the same compensation. * * * They cannot legally give undue and unjust preferences nor make unequal and extravagant charges. Having the means of transportation they are liable to an action if they refuse to carry freight or passengers without just ground for such refusal. The very definition of a common carrier excludes the right to grant monopolies or to give special or unequal preferences. It implies indifference as to whom they may serve, and an equal readiness to serve all who may apply and in the order of their application."

By statute in this state it is also provided (chapter 28, section 4, acts Twenty-second General Assembly):

"It shall be unlawful for any common carrier, subject to the provisions of this act, to make or give any preference or advantage to any particular person, company, firm, corporation or locality, or any particular description of traffic, in any respect whatsoever, or to subject any particular person, company, firm, corporation or locality, or any particular description of traffic to any prejudice or disadvantage in any respect whatsoever."

With certain provisions not material in this connection.

Such being the duties of common carriers, both under the common law and the statutes of this state, it is necessary, in order that the same be fulfilled or performed, that their station grounds, and the facilities furnished thereon, should be very largely, if not exclusively, under their own control and management.

The duty is primarily upon the defendant to furnish at the place in question all of the facilities there reasonably necessary "to promote the security, convenience and accommodation of the public." If the defendant company sees fit to entrust with the complainant, Wilson, or any other person, the privilege or duty of furnishing any facilities there for buying, handling or shipping grain or other produce, it would certainly have the right to make the granting of the same subject to all legal and proper conditions and stipulations. The company could not be expected to furnish ground to an unlimited extent, or to a great number of persons. It is true that it has become a common custom with railroad

companies in this state to grant such privileges as those asked for by the complainant in this case, upon the station grounds of such companies, where they own or control sufficient ground for such purpose, but it can hardly be claimed that such usage has as yet the force of law. The commissioners are informed it is now almost universally the case that the ground so occupied for elevators, warehouses, etc., is leased to the occupant, and which lease is made subject to certain important conditions that the lessee is required to assent to before obtaining the privilege, in other words, the granting of the same becomes, or is to a certain extent, at least, a matter of contract or agreement between the parties, and not a right that can be claimed of the carrier by every person who desires to ship grain over its road, by reason of any duty imposed upon it by law in its capacity as a common carrier. It is true that this board has held that where such railroad company has at any of its stations granted such privileges or facilities to one or more persons, it is its duty, in order to avoid the discrimination prohibited by statute, to grant the same to other proper persons applying for the same, to the extent of the means at the command of the company reasonably so to do. To say, however, at a station where the company had never granted such a privilege to any person it should be compelled to adopt that same course, without any statute or common law principle being cited or known to the commissioners to justify such a ruling, would

present a different question. The duty is upon the defendant, as before stated, to furnish the proper facilities. [This journal has ever held this was the carrier's duty and that elevator men should be compensated for performing it.] And no right has been created either by usage, contract or statute under which the complainant can demand what he asks for. The commissioners, no more than the courts, can make law; they only attempt to construe or enforce rights already defined, provided for or established by the law. As the Supreme Court of the United States has said in what is known as the "Express Cases," where more than one express company sought and demanded the privilege of doing business over the same railroad at the same time:

"The regulation of matters of this kind is legislative in its character, not judicial. To what extent it must come, if it comes at all, from Congress, and to what extent it may come from the states are questions we do not now undertake to decide; but that it must come when it does come from some source of legislative power, we do not doubt. The legislature may impose a duty, and when imposed it will, if necessary, be enforced by the courts; but unless a duty has been created either by usage, or by contract, or by statute, the courts cannot be called upon to give it effect."

All of the authority granted to the commissioners under the laws of this state, so far as the present case

public, in relation to traffic in that community at present, but in the judgment of the commissioners the defendant should build or erect at said place called Hill's Siding a depot building and platform and also stock yards. These, it is thought, may be placed on the present right of way without so obstructing it as to seriously interfere with its use for other purposes, without any relocation or readjustment of the defendant's present track or side tracks. If such is found not to be the case it is to so relocate and readjust said tracks as to afford the said facilities, and the defendant is further to furnish, upon reasonable notice, suitable cars to persons applying therefor, for the shipping and transportation of corn, grain and other freight in carloads, and so place the same upon the side tracks that the same can be readily loaded and unloaded.

A DOUBLE ROLLER CHAIN CONVEYOR.

The accompanying illustration represents a double roller chain conveyor with centrally hung flights such as finds general application in canning factories. It consists of two strands of roller chain, having suitable swivel attachments to which the flights are bolted.

The chain describes two curves without the assistance of idler wheels, which is only possible with the use of the roller chain. Each link is provided with a roller traveling on suitable runways, thus producing the least possible amount of friction and requiring a minimum of power, besides making it possible to extend the conveyor a considerable length without subjecting the chain to undue wear and tear. The machine can be used for handling corn, tomatoes, etc., in crates or baskets, which are placed in the conveyor trough between the chains and carried forward by the flights. If desired the material can be handled in bulk, with the same machine, by simply covering the flights with cotton duck or canvas.

In addition to the conveyor described, the Jeffrey Mfg. Co. of Columbus, Ohio, furnishes various devices for handling the product of canning factories in every con-

ceivable form. It has equipped a number of large canning factories with a complete system of its labor saving devices. Further information, prices and complete catalogue will be furnished interested parties on application.

EUROPE'S GRAIN IMPORTS.

For three years we have seen that the consumption by Europe alone of imported breadstuffs amounts to over 900,000 quarters per week, or if the ex-European demands be added, to nearly 1,000,000 quarters per week for the whole world: this is a vast quantity of stuff to be handled with unfailing regularity and despatch, and the mind recoils from the thought of what would happen should there be any let or hindrance in the delivery of Europe's daily bread, say for a few months, owing to a real crop failure in America, or a great war. It is only a few years ago when the total consumption of the world of imported wheat was reckoned at about half this quantity, but year by year Western Europe is becoming more and more dependent upon extraneous help in furnishing, not only her staff of life, but feeding stuffs of all sorts, as witness the exports from Russia alone of the five chief cereals in the five and one-half months ending June 11, viz., 19½ million quarters this season, as compared with 6½ million quarters in the corresponding period of the previous season.—*Corn Trade News*.



A DOUBLE ROLLER CHAIN CONVEYOR.

is concerned, is found in section 3, chapter 77, acts of the Seventeenth General Assembly.

And in another statute enacted later provision is made for the enforcement by the courts of all such orders affecting public right, as are found to be reasonable and just, and in the refusal of compliance with any such orders the railway company is failing and omitting the performance of a public duty or obligation.

Under the power so granted to the commissioners they might find or determine that it was the duty of the defendant to furnish the proper facilities to enable the public to avail itself of the services of the defendant as a common carrier. To hold, however, under all the circumstances as disclosed by the evidence in this case, that the said complainant has a right under the law, as now existing, to demand of the defendant the assignment to him of a certain portion of ground for the purpose of erecting thereon an office, cribs and warehouse, as asked for in his amended petition, and that it is within the jurisdiction of the commissioners to order or require the defendant so to do, would be going further than they feel justified in doing, and consequently they decline to make such an order.

The commissioners are not prepared to say from the evidence that there would be sufficient grain shipments from said station or siding to make it incumbent upon the defendant to erect there a warehouse or elevator for the convenience or accommodation of the

HAND APPARATUS FOR VENTILATING GRAIN, ETC.

The accompanying cut shows the invention of a German inventor for use in warehouses, mills, etc., for ventilating grain. It consists substantially of an air pump *a*, a hose *b*, and a nozzle *c*. The latter is perforated. The nozzle can be pressed down in the grain at any desired point, and then by pumping air can be forced into the grain. The whole apparatus is mounted on rollers and can be taken to any part of the building.

THE STABILITY OF GRAIN SILOS.

NO. I.

The stability, and consequently the safety, of the walls of grain silos is a subject of importance, but one upon which much general misapprehension prevails. When silos are built, the walls are often erected of similar strength to ordinary warehouse walls, which are dependent only upon a downward weight or thrust; the lateral pressure, being misunderstood, is totally ignored, consequently efficient staying commensurate with safety is neglected, the result being that many existing silos at the present time are, in an engineering sense, by no means stable. And if the proprietors of such silos were to investigate the nature of the strains relating to the stability of walls, they would find much to interest them and food for reflection. Grain storage silos are usually built of iron, wood or brick, each material having respectively advantages and disadvantages. Iron structures, which, although the strongest, are seldom made use of, their greater cost being deterrent. Occasionally wrought framework, composed of angle iron, has been used, the framing covered with woven wire work, which allows of a means of efficient ventilation entirely absent in solid structures. But all such constructions of iron are subject to rapid oxidization and deterioration unless well protected with periodical coats of paint, and the painting of a series of iron framework silos is a difficult and most laborious piece of work, owing to accumulated and adherent dust which requires to be cleared away before the painting can proceed.

Wooden silos built upon the American plan, viz., with the boards placed in layers on their flat, and spiked together with nails, is perhaps the strongest and most efficient, consistent with cost. The disadvantages of this kind of silo are the risk of fire, dry rot in the timber, and the harboring of weevils and insects. From the nature of the boarding, any moisture absorbed from the wheat, etc., is likely to remain between the layers and produce rot. The ordinary wood boarded bin, when enlarged to the extent of a silo, becomes impracticable, and may be left out of the question. Brick is the more favorable material; it is porous and absorbent, and the contents of a brick silo are less liable to heat than that of iron or wood. The fire risk is nil, it will outlast wood and requires less repair than iron, while the initial cost is also in its favor. Consequently the use of brick for the construction of grain silos is becoming generally extended, therefore it is to brickwork that the remarks herein particularly refer.

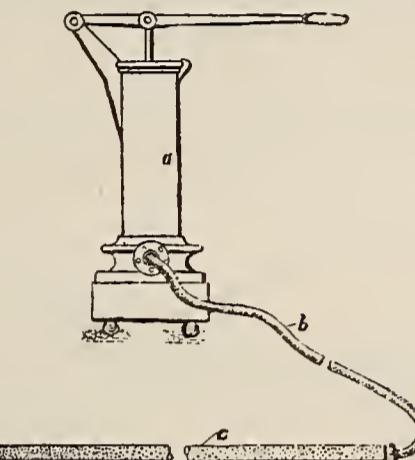
The stability of a silo depends materially upon the question of by what law or rule of mechanics should the pressure or strains upon a silo be calculated, and it would appear that this all-important question has never been definitely decided by any competent authority. Among those who have given the subject consideration it has been argued that the pressure can only be taken by the rules applicable to hydraulics and treated as if for water, that is, as if the silo were a tank containing water; by others that the contents should be treated as a solid, that is, as if the receptacle was filled up with loose bricks or billiard balls, etc., by which the pressure would be entirely upon the bottom; and again by others that the contents

can only be treated as a semi-liquid, such as sand, or a mean between the liquid and the solid.

The argument of the solid theorists against those holding the liquid view of the matter, a telling one, was the request to pile up a quantity of wheat upon a table or floor, then take the same quantity of water and try to pile it up in like manner.

The adherents of the solid theory, to strengthen their views, state that the pressure in the outlet spout of a silo is trifling, and that when a pair of scales were applied to the spout and the pressure weighed it was insignificant, which would not be the case with water, the pressure of which would be equal to the weight of a column as high as the bin was filled to and equal to the spout in area.

That the flow of wheat from the spout of a silo can be stopped by a piece of board, tin, etc., held up by



HAND APPARATUS FOR VENTILATING GRAIN.

the hand is a recognized fact commonly known to millers, but from which erroneous inferences are often drawn.

The third theory, that of a semi-liquid, is probably the most correct of the three, for it is quite evident that wheat is not a liquid nor yet is it a solid. Then if taken as a semi-liquid the stability of a silo wall comes under the same head or rule as that of a retaining wall when supporting loose earth, sand or gravel, but again most writers on this subject of retaining walls, while differing more or less in their trigonometrical disputation and rules for the stability of such retaining walls, agree in concluding that the solution of problems of this nature is in a great degree empirical,

the pressure upon the sides is equally distributed throughout; the pressure upon the width of surface at any height is simply the weight of the layer of wheat that bears against that surface.

It has also been asserted that the grain throughout the bulk of the silo supports and sustains itself by taking the form of a multitudinous series of arches, arch upon arch, grain bearing against grain, like the billiard ball theory, and that in consequence there is no pressure against the sides, while the bottom only sustains the weight of the before mentioned pyramid, due to the angle of repose. That this is a fallacy requires no argument, as if the bin contained say 100 tons of wheat some 80 per cent. of this weight would be buoyed upon air and rests upon nothing. But other of the assumptions are also fallacious; for instance, that because the flow of wheat from a silo spout can be stayed by hand, and when scales are applied the pressure only weighs a few pounds, therefore it has been inferred that the pressure upon the whole bottom is in like proportion trifling. The answer to this fallacy is: If a platform weighing machine could be placed so as to cover the entire bottom of a silo then the weighing would show a very different result; a large proportion of the 100 tons contained would be found to be pressing upon the bottom. The explanation is, that the grain flowing through a small orifice the particles by the rubbing or frictional contact become wedged across that orifice and so retard the flow; that the pressure on the slide is light is simply due to the head being only about a foot or a little more; the pressure from the weight of the bulk above is shut off from the spout by the series of wedges or plugs that form and re-form over the orifice; but widen that orifice and the flow and pressure become greater; increase the orifice until the full width of the silo is attained, then the wheat ceases to wedge itself, as there is no support from the sides of the orifice. The flow of wheat from a silo may be exemplified by observing the flow of a sand glass, the action in both being similar.—*Millers' Gazette, London.*

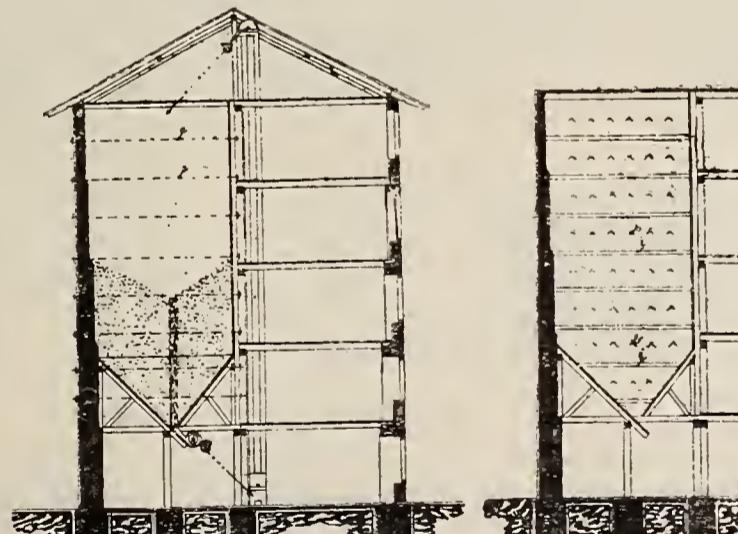
A GERMAN IDEA FOR DAMP GRAIN.

The sectional view given herewith shows a grain house of a construction adapted to handling damp grain. The construction itself is not especially peculiar, and the point about it is the use of wedge-shaped tubes to supply ventilation all through the grain. The two small cuts at the right show the details of the tubes. The idea is one not very difficult of carrying out, but of its efficiency we are unable to judge. Motion of the grain itself would be more efficacious in drying or for preventing the grain from heating; though the plan itself would enable a fresh supply of air to be constantly diffused through the grain. We give the plan for what it is worth. It may at least prove suggestive.

Asby Woodson, who is running an elevator at Winfield, Kan., for Davidson & Smith, says farmers are buying wheat on the streets of Winfield to feed to cattle and hogs. He says that the corn crop from Winfield west looks bad, but eastward it does not show much damage.

We got a long ways the worst of it in that brilliant deal wherein we offered this paper for one year for two bushels of wheat, and you may understand the howling entirety of that worst when we say that, out of 74 subscribers who accepted the offer, not one has brought us a bushel of wheat.—*Sentinel, Hays City, Kan.*

The new wheat crop of Kansas is being moved very slowly this year as compared to that of the two preceding years. Two years ago at this time the local Board of Trade was handling from 300 to 400 cars of grain a day, while last year with the light crop over 100 cars were being handled daily. The light receipts this year are due to the low prices.



A GERMAN ELEVATOR FOR HANDLING DAMP GRAIN.

and that such rules should not be entirely relied upon without the assistance of the experience gained from precedents, but unfortunately with the question of silos we have no experimental precedents, for, as far at least as the writer is aware, no decisive experimental tests of the pressure upon silos have ever been made. All experience and precedents must begin somewhere, and until decisive experiments have been made we must go on with the theory we have. It is commonly believed that the only pressure upon the bottom of a silo is simply that due to the weight of a pyramid of wheat piled on the bottom at its natural slope or angle of repose, that is, the angle at which it will cease to run if dropped from a spout onto a floor or flat surface, which angle may be taken at from 26 $\frac{1}{2}$ to 30 degrees, and that the wheat above this pyramid lies in successive layers at the same angle, and that

AN ONTARIO GRAIN DEALER.

Grain dealers of Ontario, Canada, and especially those in the vicinity of Shelburne, will recognize in the portrait presented herewith a gentleman known among them as one of the most promising and energetic of business men. He is known to be shrewd but generous in his transactions. Of sterling integrity he has confidence in his fellow men and faith in the future growth and prosperity of his town.

S. F. M. O'Flynn was born in Madoc, county of Hastings, Ontario, in 1850. Some time ago he started in the grain business at Shelburne, and has ever since



MR. S. F. M. O'FLYNN.

been branching out and increasing the volume of his business. He now deals in feed, flour, seeds, produce, etc., besides buying grain. During the last eight months he has bought over 160,000 bushels of grain and 20,000 bushels of potatoes. He intends to increase his facilities for doing business next year.

Mr. O'Flynn takes a justifiable pride in his citizenship, and for two years was a town councilor. He has a beautiful home at Shelburne, with 140 acres of land, where he pastures high-class cattle for export.

GRAVITY AND CUT-OFF GRAIN CLEANER AND GRADER.

David J. Davidson, Brockway, Mich., has invented a new gravity and cut-off grain cleaner and grader, which is provided with a cut-off sieve cleaner, simple in construction and operation.

The invention consists of the construction, combination and arrangement of devices and appliances illustrated in the accompanying drawings, in which Fig. 1 is a vertical section of the machine. Fig. 2 is a vertical cross section through the sieve. Fig. 4 is a plan view of the sieve and suction fan, the case of the latter being omitted. The machine is especially designed to properly clean and also to grade grain, so that the best of the grain may be separated from that which is of lighter weight or of inferior quality, as well as from all impurities, so that neither impurities or good grain of inferior quality, or light weight, shall cause the bulk of the grain marketed to be regarded as second-class, and thus enable the seller, by separating effectually his first-class grain from the rest, to get a higher price than would be the case if the lighter grain were mixed therewith. It is designed to both clean and grade the grain in a complete and satisfactory manner.

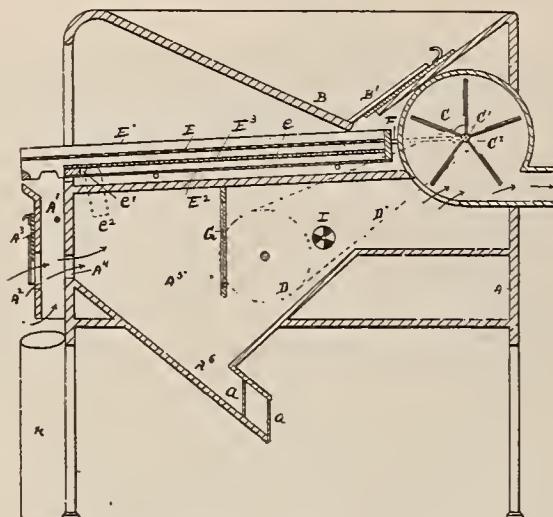
1 represents the case of the machine. B is a hopper preferably provided with a slide B' to control the rate of feed therefrom. C denotes a suction fan of any suitable construction, and C' is the fan shaft. D is the driving wheel, engaged upon the side of the frame and belted by a belt D' with a pulley C' upon the fan shaft.

E represents a cut-off sieve, upon which the grain passes from the hopper B. This sieve is located in a case E' constructed with a fixed bottom E² and with a movable bottom E³, located between the fixed bottom E² and the sieve proper. This movable bottom is constructed of a series of valves or slides e located

edge to edge, and extending the full width of the sieve underneath the same, one end of each of the slides extending beyond the sides of the case and being formed into a handle c'. The sieve E is of finer mesh at the end thereof adjacent to the fan, the opposite end being made coarser, as shown more fully in Fig. 2. Certain finer seeds and impurities mixed with the grain in the hopper will, of course, drop through the finer portion of the sieve E. The slides e may be pulled out, as many as may be desired, to allow such small seed and other smaller impurities to fall upon the fixed bottom E². The chamber between the two bottoms of the sieve discharges at the end farthest from the hopper through an opening at e¹ into a spout e². The chamber between the movable bottom and the sieve E discharges at the end of the movable bottom into a spout or duct A', which is formed upon the exterior of the rear of the case by means of three sides or walls which extend down below the screen or sieve.

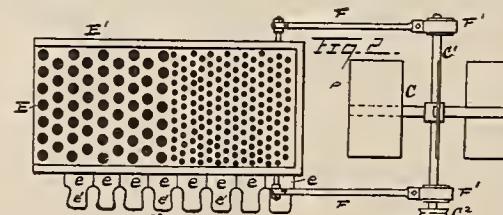
By properly adjusting the slides e, the smaller impurities will be separated from the grain, said impurities dropping upon the fixed bottom E². The

FIG. 1.



grain will be discharged through the sieve upon the slides e³, which are left in closed position and will be discharged therefrom into the duct A'. The straw and other coarser impurities will be discharged from the rear end of the sieve and fall outside the duct A'. The products that will pass into the duct A' are the best of the grain mingled with the smaller, lighter and second-class quality of grain. All the impurities, both the smaller and the coarser impurities, are separated therefrom.

The screen is reciprocated and shaken by means of connecting rods F connected with eccentrics F' upon



the fan shaft. To separate the second-class quality of grain from the first-class grain after the impurities have been removed therefrom, as above described, and grade the grain, the outer wall of the duct A' is constructed with an orifice as at A², the size of which may be regulated by a slide A³. The case A is also constructed with an adjacent opening A⁴, preferably of more contracted size than that of the opening A². By locating the openings A² and A⁴ near the lower end of the duct A', a portion of the air is drawn through the lower end of the duct and is thus caused to pass upwardly against the descending stream of grain that is falling through the duct, which will catch any of the impurities that might by any possibility have passed the opening A⁴ without being drawn into it by the current of air passing in through the opening A². Within the case A is formed a chamber A⁵ through which a blast of air is drawn by the suction fan, the air being drawn in through the duct A' and the opening A⁴ into the chamber A⁵. At the base of the chamber A⁵ is a discharge spout A⁶, provided with flap valves a and a', opened by the pressure of the grain from within, and closed by air suction.

Within the chamber A⁵ is located a screen G, which may be made of flannel or of fine wire gauze, and

same extended downward a desired distance from the top of said chamber and leaving a free air passage thereunder, as will be seen by referring to Fig. 1.

The operation of the grading features is as follows: As the grain drops into the duct A', the draft of air, regulated as required, strikes it and carries the lighter portions thereof into the chamber A⁵ through the opening A⁴, the air blast being concentrated at the point of said opening by reason of its more contracted area. The first-class grain, of due heft, will not be affected by the suction blast, but will drop by its gravity through the duct A'. When the lighter grain has been drawn into the chamber A⁵, the same must of necessity pass beneath the screen G, but as said screen will allow a portion of the air blast to pass therethrough, it will be obvious that the air blast beneath the screen G will be much diminished from what it was at its entrance into said chamber. This diminution in the force of the air blast beneath the screen G will allow the lighter grain to drop by gravity into the spout A⁶. The sides of the case A may be provided with air valves I, by means of which the force of the suction within the chamber A⁵ can be regulated as required. It will be perceived that the suction of air does not act upon the grain until it has been discharged from the movable bottom of the sieve into the duct A'. Dust will therefore drop with the grain into the duct A' and will be drawn with the lighter grain into the chamber A⁵. But the force of the suction blast will still carry the dust along therewith, after the lighter grain has dropped into the spout A⁶, and discharge it from the machine.

The provision of the sieve with the movable bottom E³ formed of slides constitutes a cut-off sieve, as thereby the finer seeds and other impurities are cut off from passing farther along with the grain.

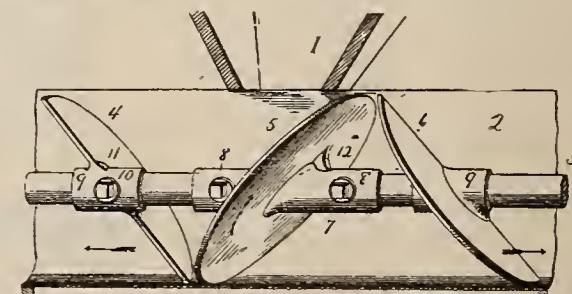
The object of having two flap valves a and a' is to have one closed while the other is open, so as not to lessen the force of the suction blast within the chamber A⁵. Only one sieve is thus required for dressing up any particular kind of grain.

A NEW SCREW CONVEYOR.

The illustration presented herewith shows a section of a screw conveyor recently patented by Faustin Prinz of The Prinz & Rau Manufacturing Company. The essential feature of this new conveying device consists of its power to convey grain and similar material in opposite directions at the same time.

This function is made possible by an arrangement of an elliptically shaped flight centrally set or mounted on the conveyor shaft and in such relation to the feed spout or hopper that all material fed into the conveyor therefrom is immediately and with no difficulty divided into equal portions and conveyed in opposite directions by the rotation of the flight.

The intermediate flight is practically formed of two half ellipses set on the shaft with the same direction



A NEW SCREW CONVEYOR.

of obliquity and in such proximity to each other that the material fed into the conveyor is divided with facility.

A clear idea of the construction of this appliance is given in the illustration. At 1 is the hopper or spout feeding the conveyor, 2 the conveyor box, 3 the shaft. At 5 is shown the flight, elliptical in form; at 4 and 6 are represented semi-ellipses, and at 8, 9 and 10 the manner in which they are fastened to the shaft.

This conveyor will undoubtedly prove of great use in elevators and mills. It will overcome the necessity for extra spouting, and in many ways will be found a convenience and a practical appliance.

Warning to whom it may concern: Corn, corner, Coroner.

RAILROAD STRIKE LIABILITIES.

With the resumption of business on the railroads after the recent great strike the question naturally arises as to the liability for the loss and damage to freight occasioned by the strike. The railroad companies have already filed notice of some of their demands on the city of Chicago for reimbursement for the damage or destruction of their property which they suffered. They, however, are reported to have decided, through the advice of their counsel, who held a meeting to consider the matter together, not to assume the losses of individual shippers, though they promise to assist the latter in the prosecution of their suits against the city and county. This action is very significant, as well as of the greatest importance.

To the Supreme Court of Illinois belongs the honor of, eight years ago, rendering a decision which has done more than perhaps any other to relieve carriers from liability for delays of freight caused by strikes where they are able and would perform their contracts but for the unlawful interference of former employees. But those causing the delay must not at the time be employees for whose acts the companies are responsible. Two years later we find the Court of Appeals of New York, a state supposed by many to be committed to a contrary doctrine, holding that in the absence of special contract there is no absolute duty resting upon a railroad company to deliver the goods intrusted to it within what, under ordinary circumstances, would be a reasonable time. Not only storms and floods and other natural causes, it says, may excuse delay, but the conduct of men may also do so. An incendiary may burn down a bridge, a mob may tear up the tracks or disable the rolling stock, or interpose irresistible force or overpowering intimidation; and the only duty resting upon the carrier not

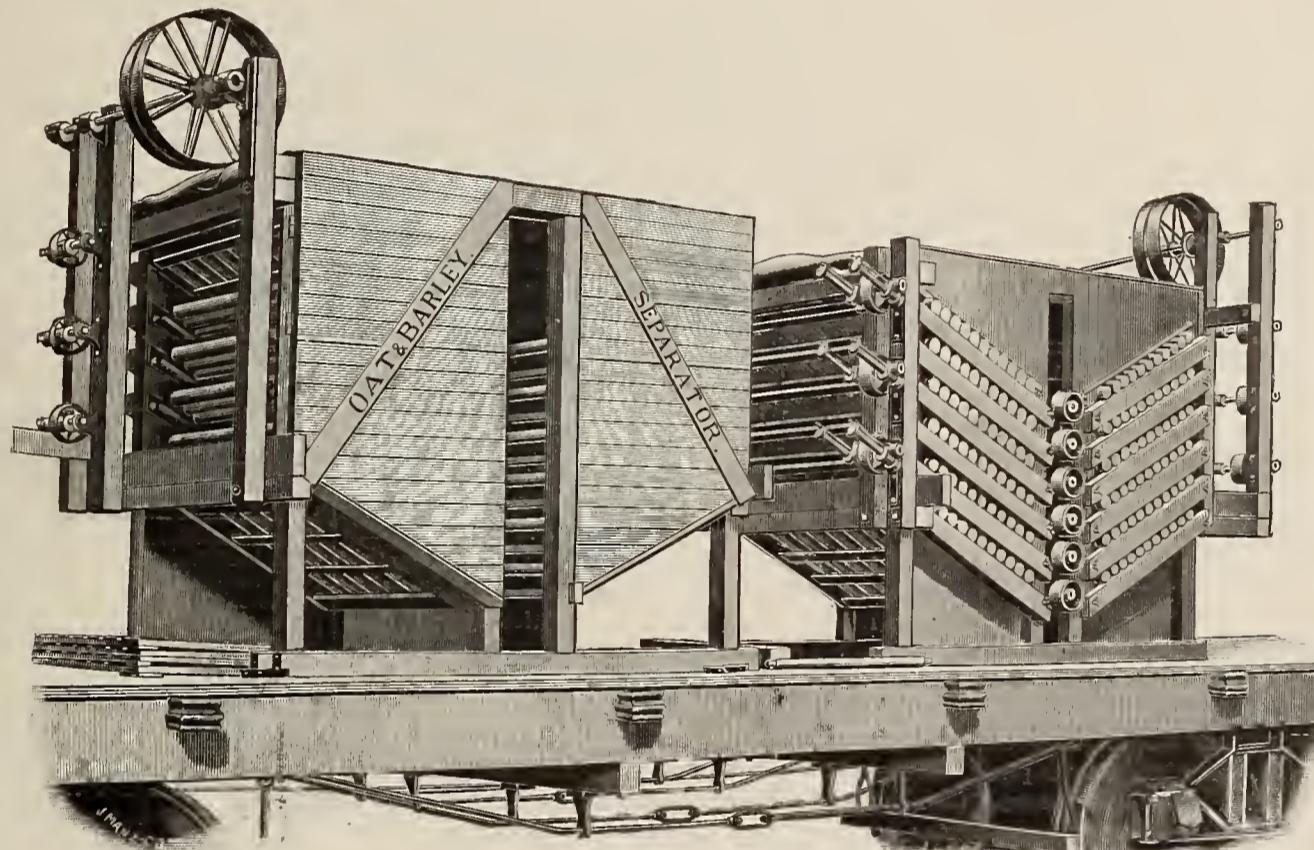
otherwise at fault is to use reasonable efforts and due diligence to overcome the obstacles thus interposed, and to forward the goods to their destination. The Supreme Court of Texas, after committing itself to the absolute liability theory in cases of strikes and delays, has come over to the position taken by these other courts. It has even gone a step farther in holding that if the delay be excusable on account of a strike, and due care be taken to protect the freight from injury, the carrier will not be liable for damages resulting from decay of fruit or a fall in price during the time covered by the delay. The Supreme Court of Georgia, on the other hand, holds that whether a common carrier would or would not be excused for any delay in delivering goods resulting entirely from a strike by some of its employees, in which there was neither violence nor lawlessness, yet where it affirmatively appears that the delay was caused in part by the disobedience and failure in the performance of their duties of other employees who did not engage in the strike, but were retained in the company's service, and the carrier not having shown that the injury resulted from the delay caused solely by the striking employees, it is liable for failing to deliver in what would usually be a reasonable time a carload of fruit, which became worthless from inherent qualities because alone of detention en route beyond such reasonable time.

While this much relief has been accorded to common carriers, and it is not to be despised, there is no decision which will excuse them from making delivery within a reasonable time after the excusable cause

of delay has been removed. Therefore, if loss occurs through a strike, other than such as has just been adverted to, it would seem as if the carrier would be responsible for same. Carriers, it must always be remembered, are by the common law made insurers. Whether the calling out of federal and state troops, as was done during this last strike, would change the liability, is questionable. But good arguments can certainly be advanced for resolving the doubt in favor of the railroads. The position which they have taken suggests that they appreciate this and are determined, if possible, to break one more thread of the bonds wrapped about them before railroads were dreamed of and when such carriers as there were conspired with highwaymen to be plundered of their merchandise.—*Railway Review*.

AN OAT AND BARLEY SEPARATOR.

Many devices have been designed for mixing barley with oats and oats with barley, but few practical machines for separating oats from barley have been placed on the market. The demand for a machine of this kind that would make perfect separations had



AN OAT AND BARLEY SEPARATOR.

been one of long standing. Several good barley machines are now on the market, and another one will soon be put on the market which will separate all broken grains of barley from the whole grains.

The illustration given herewith represents two oat and barley separators and graders made by J. M. King & Son of Rochester, Minn. The machine is a very simple separator without suction or blast. The hopper end of the machine on the left hand and the gear end of the machine on the right hand are shown most distinctly. The capacity of these machines is 600 bushels each per hour. The machines might be termed double machines, as they have two sides just alike and incline toward the center where the screenings fall. The clean grain drops the whole width of the gear face.

A 300-bushel machine would be represented by cutting either of the above machines in two in the center, and might be termed a single machine. The single plan would be used in machines from 500 bushels down, and the double plan from 600 bushels up.

The separator has an automatic arrangement for keeping the reels clean and to prevent them from clogging or filling up. It is said to be durable, reliable and easy to operate, and is light running, requiring very little power. The grain is thrown endwise against perforated metal, the oats and the shrunken grains of barley pass through the perforations and the good barley is retained.

Iowa railroads have appealed to the State Railroad Commissioners for permission to increase rates.

NEW RICE RULES AND REGULATIONS.

The following has been issued by the New Orleans Board of Trade to receivers of rice under date of July 18: "In view of the fact that great loss is sustained in the shipment of rough rice to this market through inferior condition of sacks, careless handling and pilfering on the levees, at the railroad depots and elsewhere, this Board of Trade has established rules and regulations for the government of a rice supervision department. These rules provide for the appointment of competent supervisors, whose duty it shall be to carefully watch all receipts and prevent in every way waste occasioned from any of the above causes. The rules are also designed to throw safeguards around this commodity for its protection generally. Similar plans have been successfully applied to other interests, and there is no reason why the one we propose should not prove of incalculable benefit with regard to rice. Owing to increased competition which has arisen at certain points in Texas, where the merchants have erected mills and are bidding for a large portion of the rice business, it behooves those of our city interested in rice to take active steps toward

retaining the patronage they now control in this line. This cannot be better accomplished than by seeing that the property intrusted to them is well cared for, and that useless waste is avoided. It is natural to suppose that some opposition will manifest itself at the inception of the proposed movement, arising principally from a misconception of its object and method, and in this respect we would ask all parties to make inquiry of the Board of Trade upon the features they do not understand before condemning the movement. In order to carry out the objects and purposes of such a department upon a thoroughly systematic plan, a small charge will be made amounting

to not over one cent per sack on every sack received, the entire revenue thus derived to be placed in a special fund, out of which shall be paid only the expenses incident to that department. It is considered that when the system is complete the fee of one cent will be trivial compared with the benefit and saving derived."

BUFFALO'S GRAIN TRADE.

The receipts of grain, flour included, at Buffalo, N.Y., during July were 15,992,811 bushels, against 20,759,248 in July, 1893, and 20,678,966 in July, 1892. The receipts from the opening of navigation to August 1 during the last 15 years were as follows:

	Flour, Barrels.	Grain, Bushels.	Grain, Inc. Flour, Bu.
1894.....	4,418,093	43,041,668	65,132,133
1893.....	3,574,050	58,914,621	76,784,871
1892.....	3,988,367	52,628,083	72,569,918
1891.....	2,299,045	37,745,473	49,240,693
1890.....	2,013,667	46,468,168	56,536,503
1889.....	1,728,381	35,110,449	43,752,070
1888.....	1,947,070	28,945,365	38,680,715
1887.....	1,522,839	39,469,056	47,083,251
1886.....	1,935,778	31,435,485	41,114,475
1885.....	894,423	20,705,312	25,177,427
1884.....	867,590	18,444,180	22,782,430
1883.....	908,015	25,761,405	30,301,480
1882.....	773,520	20,260,765	24,128,410
1881.....	494,095	28,252,747	30,723,223
1880.....	531,824	52,817,179	55,476,290

At Great Bend, Kansas, July 25, corn sold at 40 cents and wheat at 33 cents a bushel.

GRASS AND WHEAT.

BY HENRY WALKER.

A field of wheat and a field of grass,
The one grows wild and the other tame,
The one was here when the other came,
Yet the other shall stay and the one shall pass.

Ages ago this rich, red soil
Was covered with blades of delicate green,
With yellow and purple flowers between,
And neither the grass nor flowers knew toil.

And in that old, old long ago
The rain sent hope to this wilderness,
The dew brought life to its loveliness
And the earth grew rich in the sun's warm glow.

And between the sky of blue and white
And the broad, fair land, was only heard
The music of God—no spoke word—
From the bright, fresh morn to the cool sweet night.

And so the years and centuries went.
While none but these of the wild land knew
That grass and flowers in this paradise grew
Till the march of Time the wheat field sent.

And now the wheat grows next the grass
That for thousands of years has called this home,
But one for thousands of years to come
Shall stay—and the other shall pass.



[We invite correspondence from everyone in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

CHANGE IN OWNERSHIP OF MINNESOTA ELEVATORS.

Editor American Elevator and Grain Trade:—As signee Weiland sold the Nicolin Elevator at New Prague, Minn., to Jas. Quirk & Co. of Waterville, Minn., for \$2,475. Mr. Everett of the firm of Everett, Aughenbaugh & Co., Waseca, has purchased Mr. Quirk's interest in the lower elevator at New Prague.

Yours, H. L. DOLGE.

Montgomery, Minn.

WILL LEND SACKS TO FARMERS NO MORE.

Editor American Elevator and Grain Trade:—A meeting of the grain dealers, millers and maltsters of Butler County was held at this place recently to put a stop to the practice of lending sacks to farmers. The meeting was a success, and the grain men present decided neither to lend nor rent sacks in the future.

In accordance with this agreement we are now selling our sacks to the farmers at nominal prices, and they are generally well pleased with the plan.

Yours, ANDERSON & SHAFFER.

Hamilton, Ohio.

REQUIRE RECEIVERS TO MAKE DEPOSIT FOR FREIGHT.

Editor American Elevator and Grain Trade:—Replying to V. E. Chamberlain in the last issue of the AMERICAN ELEVATOR AND GRAIN TRADE I would say that it has been the custom of most Chicago freight agents to ask the receivers of grain to make a deposit with the railroads in accordance with the magnitude of the business done.

In Mr. Chamberlain's case it certainly would seem that the Missouri Pacific Railroad agent was very negligent, to say the least, and, as a matter of equity, in my opinion they should stand the loss.

R. G. RISER.

Kankakee, Ill.

TRACK SCALES IN KANSAS.

Editor American Elevator and Grain Trade:—For some time Kansas grain shippers have hoped and worked for the installation of track scales at receiving points. Scales are being put in at Kansas City, and those that are already in are, I believe, doing good work, though it is as yet too early to pass judgment.

Many objections were made to them at first. Some said track scales, being exposed to the weather, were soon rendered unreliable, losing sight of the fact that almost all wagon scales belonging to grain men are not under cover, and that by a slight amount of care

and attention they are kept reasonably accurate. The grain buyer has faith enough in these exposed scales to buy grain over them. If the railroad company neglects its scales, whether they are under cover or not, they will soon be declared unreliable.

We want a clean bill of lading for the shipper. I believe that the railroad company should be held responsible for grain in transit and should make good all shortages. By the institution of track scales many wrongs would be eradicated and we would take a step toward more just business principles between shipper and carrier.

With track scales the railroads would receipt in full for grain loaded into their cars and make good any shortage while in transit. I think the result would be that shortages would very materially diminish, that better cars would be furnished the shipper, and that terminal weighing would be more reliable.

KANSAS.

EFFECT OF USING A BRUSH ON BARLEY.

Editor American Elevator and Grain Trade:—Pardon me for drawing your attention to a fact, which of late years has been abused very much (with very few exceptions) both by shippers and buyers of barley, viz.: the demand for heavy testing barley, regardless of the uniformity of the grain.

The demand the last few seasons was for 49 to 51 pounds of barley and (generally speaking) the shipper of barley who could not furnish such a test would not be in it. However it was an easy matter to get this test: all that was necessary was to use the brusher, and any grade of barley, regardless of the size of the grain, could be brushed to such an extent as to increase the testing capacity from 2 to 3 pounds on small and 3 to 4 pounds on large berried barley.

By letting the barley go through this process nothing is gained as to quality. The barley may appear somewhat smoother and have a better selling appearance, but in the end this process is detrimental to the barley and deceiving to the buyer, for the reason that the test so created is only brought about by breaking off the ends, which gives the barley a chance to pack closer in the tester, and thereby giving an increased weight, which the barley would not have if only cleaned properly over a separator. The brushing simply creates a test to which the grain is not entitled; besides it injures the growing qualities and on that account often makes a hard and flinty malt; besides if brushed too close (which is often the case) it makes bad appearing malt and of course loses its selling power.

Barley not brushed, as a rule, will grow more uniformly, make a sweeter malt, and in consequence contains more sugar and therefore will have a larger yield. My advice to buyers would be to look more to the uniformity and cleanliness of the grain than to the actual test.

Yours respectfully, D. H. STURR.
Cincinnati, Ohio.

FILLING ORDERS.

Editor American Elevator and Grain Trade:—Notwithstanding the reports of the advantages taken by the Eastern grain man over his brother of the West, it is my humble opinion, learned by experience, by the way, that all Western shippers are not free from the desire to take advantage of the Easterner, and are not above certain tricks in the grain trade.

I went into the grain business here in the East and I often order shipments of grain from the West. I had not been long in the business before I found the Western shipper practising this innocent little operation, not once or twice, but repeatedly. I would order, say, four cars of grain. Sometimes my order received prompt shipment, often it proved the contrary, and I lost money on my purchase. Sometimes the carload contained 500 bushels, sometimes as much as 800 bushels.

I thought at first that this was accidental, but it was so often repeated that I instituted a quiet investigation, and found, with Polonius, that there was "method in it." When the market was unsettled and fluctuating my orders were not shipped promptly. When prices went up after I ordered I got small carloads, when prices went down I got large ones. Naturally I lost money by this and the middleman made money.

The commission man could easily do this (and I be-

lieve he does do it) by having orders of different dates and the grain all ready to ship when the price suits, which transpires in a few days.

This is a nice, easy way of doing business that Shylock would approve of. There is no risk and an almost certain profit; the shipper cannot be detected, and cannot be punished if he should be detected. Of course none of us wish to do without the commission man. He has his uses and is entitled to his profits; but as buyers let us protest against such a skinning game as this.

ATCHESON.

OUR BOSTON LETTER.

Editor American Elevator and Grain Trade:—We have had a good business in new oats the past month, as is usual at this time of the year. New oats are coming in in very good condition. There are few old oats held about here, and what there are are bringing a premium of about 4 cents over new oats.

The trade in feed wheat has been very brisk, but most of it is inspected.

Receipts and exports for the month of July, 1894, as compared with those of the same time in the preceding year were as follows:

RECEIPTS FOR JULY.

Articles.	1894.	1893.
Corn, bushels.....	367,468	1,049,524
Wheat, bushels.....	980,051	1,009,122
Oats, bushels.....	533,756	534,725
Rye, bushels.....	3,495	1,180
Mill Feed, tons.....	3,905	3,486
Oatmeal, sacks.....	2,790	
Oatmeal, barrels.....	3,085	4,344
Malt, bushels.....	2,725	8,673
Barley, bushels.....	120,540	122,094
Hops, bales.....	835	3,760
Peas, bushels.....	351	564
Buckwheat, bushels.....	1,034	1,110
Flour, barrels.....	600	
Flour, sacks.....	99,911	92,676
Hay, cars.....	188,390	198,928
Straw, cars.....	1,629	2,402
	89	100

EXPORTS FOR JULY.

Articles.	1894.	1893.
Wheat, bushels.....	893,231	892,086
Corn, bushels.....	19,617	559,031
Oats, bushels.....	750	
Peas, bushels.....		
Barley, bushels.....		
Buckwheat, bushels.....		
Cornmeal, barrels.....	3,123	2,895
Oatmeal, barrels.....	475	215
Oatmeal, sacks.....	500	1,455
Flour, sacks.....	205,610	215,257
Flour, barrels.....	23,901	24,914
Mill Feed, bags.....	2,992	2,850
Hay, bales.....	51,403	43,060
Straw, bales.....		

The stock of flour in Boston, August 1, was 123,393 barrels, 25,195 barrels of which were for export.

H. C. Puffer, formerly of Wilder & Puffer of Springfield, Mass., has started in the grain business under the name of H. C. Puffer & Co.

Lewis & Steele have succeeded Lewis & Steele, New Britain, Conn.

BUNKER HILL.

SOLICITING SHIPMENTS FROM FARMERS.

Editor American Elevator and Grain Trade:—I send you herewith a copy of a letter which recently appeared in the Northwestern Farmer from a Chicago firm which at one time was generously patronized by some country grain shippers I know. I suppose Mr. Carr could not make enough money by handling the grain of regular shippers. It may have been that he was unable to induce a large number of legitimate shippers to send him grain so he made up his mind to drive all country shippers out of the business. He has a big contract on hand, and he will have a bigger one if he attempts to tack his posters on the country elevators. One was tacked on my corn crib last winter where the farmers had been unloading, but I soon discovered and destroyed it. I wonder if Mr. Carr sleeps well or does his conscience keep him awake? It may be he thinks he is getting business in an honorable way. As to that I will let others judge for themselves. [The communication inclosed follows.]

TO THE NORTHWESTERN FARMER:

We notice that you honor our communication relative "to obtaining the highest price possible for farm produce" by having it appear in the columns of your issue of May 15, and we see by your most excellent editorial, in the same issue, that you comprehend

fully the advantages to farmers through shipping their own grain to a central market, instead of accepting as heretofore whatever their local buyer chooses to offer them for it. [O, yes, a farmer always accepts what is offered by the first buyer he meets.]

You state that in your opinion "it is wise for farmers to at once take advantage of this plan, either singly or by neighborhood co-operation, without waiting for the maturing of comprehensive schemes of embracing a majority of the 5,000,000 or 6,000,000 farmers, which must be the work of time." You comprehend fully the situation when you say "one great end to be sought is to place the grain upon the great cereal or final markets with the least possible nibbling by the way. [Which is preferable, a very little nibble by a man you know or a large one by a distant stranger?] There must be no more to handle and take toll between the producer and final buyer than are indispensable and such, combination among those with small shipments that the lightest transportation and other charges may be had." You say, "let us have more information upon the subject." Therefore, we will try to give your readers a little more enlightenment, which we hope will prove beneficial to them. [He might have said, will prove beneficial to ourselves.]

After several years' experience and observation in the grain business, we came to the conclusion that there were altogether too many middlemen [Can it be there were so many middlemen he could get no grain on consignment?] between the farmer who raised the grain and the consumer, particularly the consumer in the neighborhood of the seaboard or abroad, or in other words the farmer's grain had been passing through too many hands. Every time a bushel of grain was bought and sold, the new owner attempted to take a shaving off from it, or in other words to make a profit, and the business of these grain dealers was apparently very profitable, else they could not afford to put up and operate at great expense the thousands and thousands of elegant elevators [Elegant may express the truth, but we doubt it.] at every place of prominence on our railroads throughout the West and Northwest, and it struck us that if farmers could be shown how they could be brought into touch with the consumer, or as near to him as possible, thus saving the middleman's profit—that they would gladly avail themselves of that privilege. [Can Carr be a consumer? Is he not a middleman and does he not take a profit?] The saving in this way to the farmers of the Northwest, we figured out, would prove to be many millions of dollars annually.

At many places in the country, the grain buyer insists upon more than the legal number of pounds for a bushel, being in the nature of a dockage of several pounds on every bushel for real or imaginary dirt, which is a severe toll to the farmer and a big source of profit to the grain buyer. [If Mr. Carr or anyone else can prove where this was done in a single instance not of his own making, I would be pleased to know the facts.]

All grain in Chicago is sold by the legal bushel, viz.: 60 pounds wheat, 56 pounds rye or corn, 48 pounds barley and 32 pounds oats constitute a legal bushel, no dockage for dirt. The grain is inspected by a state inspector and is either sold by grade or on its merits by sample. The grain is usually weighed by an official Board of Trade weighmaster, and the farmer, or other shipper, receives pay for every pound of grain the weighmaster finds in the car, hence the gain to the home buyer through buying 60,000 pounds wheat at 62 pounds to the bushel and paying the farmer for only 968 bushels; whereas when that wheat arrives in Chicago and is sold 60,000 pounds at 60 pounds to a bushel it turns out to contain 1,000 bushels in Chicago, or a gain of 32 bushels to the shipper. Again, if the buyer purchases 56,000 pounds corn and takes 60 pounds to the bushel, he only pays for 933 bushels; he ships it to Chicago, and, according to the legal bushel of 56 pounds, it turns out to be 1,000 bushels, or a gain of 67 bushels. In the case of barley, 48,000 pounds barley at home, 52 pounds to a bushel, only equals 923 bushels; when it is shipped to Chicago and sold at 48 pounds to the bushel it equals 1,000 bushels, a gain to the shipper on the transaction of 77 bushels, and if it is a gain to the shipper, it must certainly prove to be a loss to the farmer who sold it. [This may have been practiced by schemers upon greenhorns at a distance, but never by an honorable grain buyer on his home market.]

In addition to that difference in the number of pounds for a bushel, the grain buyer necessarily must make a profit to afford to be in the business, and judging by the monuments [Why not call them palaces? Everyone who knows anything knows every elevator is a palatial structure.] in the shape of elevators scattered from one end of our railroads to the other throughout the Northwest, the business has proven a very profitable one indeed. [Many farmers have bought a farm with the net proceeds of one crop.]

We figured up last fall, making our figures very conservative, that the loss to the farmers of one county in Minnesota alone, through selling their grain at home, amounted to \$600,000. Multiply that by the 80 counties in Minnesota, and you have the snug little sum of \$48,000,000. Admitting that this estimate is liable to be too high on the state at large by 75 per cent., divide this by four and you have \$12,000,000 that the farmers of Minnesota might just as well add

to their own bank accounts as to give it to someone else. If this is true of nine Western states, the farmers of those states can just as well save \$108,000,000, which they have been losing annually for years. [Can any lightning calculator or prince of finance beat this juggling with figures?]

The great trouble, in our opinion, with farmers shipping is their timidity, because of their inexperience, their lack of confidence, both in themselves and in the people that they would have to entrust their property to, they not knowing to whom to ship it. [Right for once. The farmers insure against loss by accepting the cash of the country buyer, whom they know to be reliable and honest. They have confidence in him and get full weight and all the market will stand.] This can all be overcome with a little practice; they can easily ascertain from the editor of their agricultural paper the name of a reliable commission house, and once making a shipment, ordering the car and loading it would make them as well versed in the business as though they had practised it for years. [Can this be possible?]

It has only been about 3½ years since we inaugurated the plan of farmer shipments, but it has proven popular beyond our most sanguine expectations. When a farmer in one neighborhood finds that his neighbor has consigned a car of grain to Chicago, and has received his returns and his money all right, and has made a profit through the transaction [How wonderful that the farmer shipper always makes a profit. I can not do it.] he is anxious to try it also, and his neighbor, and his neighbor again, and so on ad infinitum, until ere long the majority of farmers throughout the length and breadth of the land will deal direct instead of paying someone else from 10 to 20 per cent. of the value of his crop for doing his business for him. [If I make 1 per cent. on the grain I handle I am well satisfied. I think a profit in excess of 5 per cent. is only made in rare cases, when the market turns in the dealer's favor. Competition prevents his buying on that basis.]

H. H. CARR & CO.

I inserted a few remarks, inclosed in brackets, in Mr. Carr's letter, which occurred to me as I read over the letter the last time. The question has frequently occurred to me who is the "Co." and is the firm incorporated? If this firm is thoroughly reliable and certain to return a profit on every shipment as it does for the farmers I might not do better than by consigning my grain to it. If other dealers have had any experience with this firm or know of its work I would be pleased to hear from them.

MINNE SOTA.

FOREIGN DUTIES ON OATS AND BARLEY.

The import duties imposed on oats and barley by different countries is shown in the accompanying table, which gives the amounts of duties imposed reduced to an approximation of United States money.

Five European countries admit these cereals free, as does the United Kingdom. Sweden and Norway allow the importation of oats free of duty, but the former imposes a tax of 17 cents per hundredweight and the latter of 3 cents per hundredweight on barley. Portugal levies more than twice the tax imposed by Spain, while Italy and Germany place a heavier duty on oats than on barley.

In the case of France all kinds of grain and flour of extra-European origin, but imported from European *entrepots* are required to pay the specified duties with a surtax equivalent to 35 cents per hundredweight in addition. In Turkey there is maintained an ad valorem duty of 8 per cent. on corn, grain, pulse and flour and meal of all kinds, while in Bulgaria those articles are taxed 8½ per cent. ad valorem.

IMPORT DUTIES ON BARLEY AND OATS IN EUROPEAN COUNTRIES.

Countries	Barley.	Oats.
Portugal	\$0.88 per cwt.	\$0.88 per cwt.
Spain .....	.43 "	.43 "
France .....	.29½ "	.43½ "
Italy .....	.11 "	.39 "
Germany .....	.24½ "	.34 "
Austria-Hungary .....	.18½ "	.18½ "
Greece .....	.23 "	.23 "
Sweden .....	.17 "	Free
Switzerland .....	.03 "	.03 per cwt.
Norway .....	.03 "	Free
Turkey	8 per cent. ad val.	8 per cent. ad val.
Bulgaria	8½ " " "	8½ " " "
Russia	Free	Free
Roumania	"	"
Denmark	"	"
Holland	"	"
Belgium	"	"
United Kingdom	"	"

DOTS AND DASHES.

The first car of new spring wheat to arrive at Chicago was sold August 1, and sold at 46 cents. It came from Central Illinois, and inspected No. 4.

Hay dealers met at St. Louis, Mo., July 10 and perfected the organization of the St. Louis Hay Trade Association. Aside from this no business of importance was transacted.

A farmer took some new wheat to the Lineville, Iowa, mill, says the *Tribune* of that place, which weighed 65 pounds to the measured bushel, after it had been run through the cleaner.

The government statistical data show on the face a loss of \$5.53 per acre of wheat and \$3.50 per acre of corn for the year 1893. It was thought by some that the farmers lost about \$47.99 an acre on each crop.

The *Hay Trade Journal*, published weekly, which publishes all the hay markets, is just beginning a new volume. Now is the time to subscribe for it and the AMERICAN ELEVATOR AND GRAIN TRADE, \$2 a year for both.

The first car of new oats to arrive in Chicago was received July 18, coming from Central Illinois, and being two days ahead of the first shipment last year. It was inspected No. 2, and sold at 32 cents on track.

It is poor policy on the part of shippers to mix rye with wheat. It is sure to lower the grading here. Out of 90 cars of No. 3 red wheat here one day recently, 80 cars were so graded on account of rye.—*Toledo Market Report*.

Two young men at Wilcox, Neb., have been holding about 20,000 bushels of corn for over four years, as during this time they have not been able to sell it so as to come out clear on it. The shortage of the crop this year will allow them to make a small margin after all expenses are paid.

The Washington State Farmers' Alliance is still following puff-ball theories and wants co-operative buying and selling, a state grain grader, log scaler and fruit inspector. Grain buyers and millers might increase the government officials and taxes by demanding state-paid stevedores and foremen to get even with farmers who try to sell poor grain for good.

There is a church in London, near Charing Cross, from the steeple of which every day at noon a bushel of wheat is thrown as a donation to the pigeons. The wheat is provided by funds left over two hundred years ago by an elderly maiden lady. The pigeons understand the custom perfectly, and when the noon bells begin to ring may be seen by thousands flying from every direction toward the church.

Gustav Green and Primus Gouch were arrested last night by Policemen Bray and O'Malley for stealing wheat from Kansas City, Fort Scott & Memphis freight cars. Justice Joyce sent them to jail for thirty days.—*Kansas City Star*. If justices at grain centers before whom grain thieves are frequently tried would always send them to jail, they would have the thanks of country shippers, who generally have to bear the loss.

Says the *Red Cloud*, Neb., *Argus*: If anyone has any doubts as to the efficacy of a "sick" chinch bug as an exterminator of the pest, a visit to the wheat field of G. W. Lindsay, south of the railroad, will dispel them. He procured a small supply of the inoculated bugs from Prof. Bruner and distributed them among the healthy bugs, which literally swarmed over his wheat, and to-day one can gather up dead bugs by the handful. If every farmer would take a like course this country would soon be rid of the pest.

Barney Swatzen and Fred Sager were taken to the penitentiary from Lima, Ohio, recently, for obtaining money under false pretenses. Their scheme was to go to a miller for the purpose of borrowing sacks in which to bring their wheat. They always got the sacks and would leave. Then one of them would come back with the statement that they had come to town without any money and needed a few dollars until they brought in the wheat. The scheme nearly always worked, and they rarely secured less than \$25 at each place. They worked all over Northwestern Ohio, and in a confession made by Sager he said they made \$551 in one week.

Trade Notes.

This year's sales of grain bags at Indianapolis, Ind., have been the largest that dealers at that place have ever known. One house has sold over 100,000 sacks this season.

The John T. Noye Manufacturing Company, manufacturers of elevator and mill supplies, report that orders for their machines have been steadily increasing, and they find it necessary to work overtime.

Advertise regularly in the trade newspaper which contains the most information concerning the business that you are engaged in. That is the paper that is read, and if your advertisement is in it, it will be read, too.

J. L. Owens & Co. of Minneapolis, Minn., manufacturers of grain cleaning machinery, have incorporated as the J. L. Owens Co., with J. L. Owens, president; Robert Owens, vice-president, and J. J. Owens, secretary and treasurer.

The Witte Gasoline Engine Works are running full time, with a full force of men. They say that their Improved Gasoline Engine is sustaining its sale everywhere, and that they will not complain as long as crops do not fail altogether.

The Witte Iron Works Company write us: "The AMERICAN ELEVATOR AND GRAIN TRADE is bringing us fully one-quarter of the inquiries we are receiving. We should think nearly every elevator man is going to or is buying a Witte Gas Engine."

"Failed? Dear me, with all the lines of trade young Oatlet followed, wasn't it possible for him to get some business?" "Oh, he followed many lines of business and pursued others; but he succeeded in catching little. He forgot to advertise."

While the miser's money is secreted in a cellar, it is losing interest. The merchant who has goods in stock and fails to let the public know of it, pursues a policy that is equally unsound. In both cases the principal may be secure, but the profit which might be realized is lost.

The Fallis Fire-Proof Grain Storage Building Company has been incorporated at Minneapolis, Minn., with a capital stock of \$50,000. The stockholders of the company are Edward O. Fallis and Edward Bayer, Toledo, Ohio; Samuel S. Linton and Wm. G. Crocker, Minneapolis.

We have received an illustrated catalogue of the grain cleaning machinery and dusters manufactured by the Richmond Manufacturing Company of Lockport, N. Y., giving illustrations and full explanations of their large line of machines. It will be sent to any one applying for a copy.

The Metcalf-Macdonald Company of Chicago, elevator architects and general contractors, report that they are making good progress in the construction of the Calumet Company's 1,200,000-bushel grain elevator at South Chicago. The general machinery is being built by the Webster Manufacturing Company.

A charter has been issued to the Otto Gas Engine Works of Philadelphia, the directors of which are Gustav Langer, Frederick Bredan and Joseph de F. Junkin of Philadelphia. Capital, \$400,000. This incorporation was made on the retirement of James Schleicher, of Schleicher, Schumm & Co., owners of the works.

The American Belting Company has been incorporated under the laws of New Jersey with a capital stock of \$250,000, to manufacture the Maddox Cotton and Wire Belting, and succeed to the business of H. N. Green of New York, who is president and general manager of the new company. The factory at Phoenix Mills, Otsego Co., N. Y., will be moved to some more convenient point, and rebuilt on a larger scale.

A. S. Garman & Sons, Akron, Ohio, dealers in grain testers and elevator supplies, report that they have not had "either a feast or a famine, but a nice steady trade in all their specialty lines, especially in the grain tester trade, which has shown a steady increase, a part of which we attribute to our cards in the American Miller and AMERICAN ELEVATOR AND GRAIN

TRADE. On the whole we have nothing to complain of."

Advertisers will confer a favor by sending us a copy of every catalogue issued. Our files of catalogues are frequently consulted by elevator men.

While you should endeavor to lighten your business of all unessential burdens and exercise strict economy in order that you may ride the turbulent sea of business depression, remember that it is not economic to let up on advertising. When you cease to advertise you snap the rudder chain, and rudderless you will drift into the dead sea of business stagnation.

Importers of grain bags at San Francisco, Cal., say that they have never seen a more hopeful season for their business, notwithstanding the fact that there is a short wheat crop in California, a decline in Calcutta prices and a proposal in Congress to put grain bags on the free list. Four ships from Calcutta recently arrived at that port with 20,396 bales, or 20,396,000 gunnybags.

The James Leffel & Co. of Springfield, Ohio, has issued a fine and complete new pamphlet, illustrating and describing their well-known line of upright and horizontal steam engines and steel boilers, with latest improvements, which were awarded diploma and medal at the World's Fair. A copy may be had free on application to the company. It is well worth sending for by anyone needing an engine or boiler.

Bags and bagging valued at \$1,431,683 were imported during the twelve months ending with June, against an amount valued at \$1,356,112 imported during the twelve months ending with June preceding. Burlaps (except for bagging for cotton) valued at \$4,566,798 were imported during the twelve months ending with June, against an amount valued at \$6,154,205 imported during the corresponding months ending with June preceding. Of imported bags and bagging an amount valued at \$30,145 was exported during the twelve months ending with June, against exports valued at \$109,752 during the twelve months ending with June, 1893. Of imported burlaps (except for bagging for cotton) an amount valued at \$1,074 was exported during the twelve months ending with June, against exports valued at \$63,417 during the corresponding months ending with June, 1893.

THE GRAIN SHIPPER'S DUTY.

The Minnesota Railroad and Warehouse Commission has issued the following to shippers of grain:

Section 6 of Chapter 29 of General Laws of Minnesota of 1893, reads as follows:

"Section 6. It shall be the duty of any shipper of grain to terminal points within this state, to fasten upon the inside of the door of every car so shipped by him, a card upon which shall be given the number and initials of such car, the date of shipment, and the actual weight of the grain in such car as ascertained by such shipper.

"In case of failure upon the part of any shipper to comply with the provisions of this section, the weight of the grain in such car, as ascertained and determined by the state weighmaster, at the terminal point, shall be taken as *prima facie* evidence of the amount of grain in such car contained."

The attention of all shippers of grain is called to the above section of the law, now in force, and its careful consideration will no doubt convince you of its beneficial intention; for in case of any discrepancy occurring between weight claimed by the shipper on this card and the weight ascertained by the state weighmaster, the attention of that official will at once be called to this discrepancy or difference, and its cause at once located by him, before the identity of the grain is lost, and the true weight ascertained beyond any doubt, and by this means much trouble and unnecessary delay avoided.

The law does not contemplate that the shipper's name nor the place of shipment should be put on this card, and it is our expressed desire that name, grade and place of shipment be omitted. In placing the card upon the door care should be taken to place it near the edge of the door that it may not be hidden from sight when the door is opened by the grain inspector.

Queries and Replies.

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column.

No. 2. Feed and Grain Wanted.—Can readers of the AMERICAN ELEVATOR AND GRAIN TRADE give us names of elevator men and millers who have feed and grain to sell?—PETER C. JENSEN, Dannebrog, Neb.

No. 3. Usual Charges for Storage.—I would like to learn through these columns the usual charges per bushel per week and per month made by country elevators for storing wheat.—F. P. TRAUTMAN, Lutesville, Mo.

Points and Figures.

During July the Kansas state grain inspector inspected 1,604 cars of wheat, 794 cars of corn, and 158 cars of oats.

Indian corn, or maize, never has an uneven number of rows of grain, because it has opposite radicals of growth from the cob center.

The yield of hops in Oregon will be large this year, being loosely estimated at 60,000 bales, a larger yield than ever before known in that state.

"About four thousand bushels of millet seed," says the Lexington, Neb., *Pioneer*, "have been sold by dealers in this city since the late rains set in. This means that eight thousand acres have been seeded to millet."

A grain company recently received a shipment of baled hay which had been bound with only two No. 15 wires. As a consequence a dozen bales broke open and the hay was scattered over the ground, rendered absolutely unsalable.

The average export price of wheat from the United States for the year ending June 30 was 67.2 cents per bushel, compared with 79.9 for the preceding year, and an annual average of 90 cents for a period of ten years ending with 1893.

F. T. Fallon, Du Quoin, Ill: "I have carefully looked over the AMERICAN ELEVATOR AND GRAIN TRADE, and am satisfied that no elevator or grain man should be without it. Kindly send mine regularly."

There were 179 cargoes of grain exported from San Francisco during the past cereal year, these being loaded and dispatched by the following firms: G. W. McNear, 75 cargoes; Balfour, Guthrie & Co., 40; Eppinger & Co., 36; Girvin, Baldwin & Eyre, 14; Spreckles Bros. Commercial Co., 6; Trubenbach & Co., 4; Starr & Co., 2; Meyer, Wilson & Co., 1; Dewar & Webb (by E. C. Evans), 1.

Our local grain dealers have been selling corn in small quantities—not over one hundred bushels to any one person—to the farmers in this vicinity who were obliged to buy in order to feed their stock. The price has ranged from 45 cents to almost 60 cents per bushel, and we understand this is done only as an accommodation, as they are willing to pay the same prices in order to get more corn.—*Souvenir, Jefferson, Ia.*

A carload of wheat was received here July 14 by the C. H. & D. Railway, containing beautiful wheat on top, and at bottom six inches of musty wheat. The contents were all graded No. 1 rejected. It is useless for shippers to play that game. Our grain triers go the bottom of the car, and such attempts at fraud are sure to be detected. Our inspectors are bound to reduce the grade of the whole contents to correspond with the lowest mixture.—*Toledo Market Report.*

OUR CARD BASKET

We have received calls from the following gentlemen prominently connected with the grain and elevator interests, during the month:

P. Gantz of Gantz Bros., Wenona, Ill.
M. F. Seeley of Seeley, Son & Co., Fremont, Neb.
R. L. Callahan of Callahan & Sons, Louisville, Ky.
J. Silas Leas of the Barnard & Leas Mfg. Co., Moline, Ill.
J. W. Carnochan, representing Huntley, Cranson & Hammond of Silver Creek, N. Y.

CROP CONDITIONS.

FLAX IN MANITOBA.—The area seeded to flax is about up to the average of 23,540 acres.

ILLINOIS, STILLWELL, HANCOCK Co., Aug. 2.—We have splendid milling wheat here this year. EDGAR P. OWEN.

INDIANA, NAPPANEE, ELKHART Co., August 8.—It is very dry here. Wheat is still coming in, and we pay 47 cents per bushel for it. W. H. BERST.

OHIO, FAYETTE, FULTON Co., July 31.—Wheat in this part of the country is a very poor crop. Corn is shrunken and sweaty, and we will not get half a crop on account of the dry weather. A. A. BACHMAN.

OHIO, BELMONT, BELMONT Co., August 13.—Wheat is good in this county and is yielding well. The oat crop is "no good." Corn is very late, and we will not get a crop unless rain comes very soon. J. D. MICKY.

KANSAS, ROBINSON, BROWN Co., August 8.—Wheat in this vicinity yields as high as 40 bushels per acre, and is of splendid quality; but corn will be light, yielding only about two-thirds of a crop. ANDERSON BROS.

EAST ASSINIBOIA.—Wheat acreage is somewhat greater than last year, barley and oats being diminished. Yield of wheat may be from 12 to 15 bushels per acre, and of fair quality. Hay will yield sufficient for local requirements.

MONTANA.—The hay crop in Northeastern Montana will be unusually short, but the yield in other sections will be correspondingly large. In all portions of the state, excepting the northeast, the crop outlook remains encouraging, and the prospects for a large yield of cereals are especially fine in Gallatin Valley.

SOUTHERN MANITOBA.—The acreage sown to wheat shows considerable increase over last year, and the wheat is of fair quality. The yield will vary from 10 to 18 bushels per acre. The acreage of barley and oats is about the same as last year. The yield will be diminished and the quality poor. The supply of hay is just about sufficient for the home consumption. Rain is needed.

CALIFORNIA, SAN DIEGO, SAN DIEGO Co., August 4. There was no grain of any consequence raised in this county this season. We are running on Oregon, Washington and Northern California wheat. That is a long way to ship wheat, but having water communication and a low wheat market, with a good demand for offal at fair figures, it still leaves a margin for the miller. R. E. HYDE.

OHIO, ENON, CLARKE Co., August 8.—Wheat threshing is in full blast. It is yielding from 30 to 45 bushels per acre, and testing from 58 to 64 pounds per bushel. Farmers are not selling freely, but are feeding their wheat to all their stock, claiming that it is cheaper than corn. Corn sells for 48 to 50 cents per bushel and wheat at 44 cents. The corn crop will be short, about one-third of a crop. D. H. SNYDER.

KENTUCKY, MORGANFIELD, UNION Co., July 20.—We have bought 30,000 bushels of the best wheat I have ever seen during the seven years I have been in the business. While at least one-half of last year's crop was of the third and fourth grade, we have not yet received a bushel of grain that did not grade No. 2. None of it weighs less than sixty pounds to the bushel, and from that to sixty-three. The price paid is 45 cents. J. K. WALLER.

RICE.—The following regarding the rice crop is taken from Dan Talmage's Sons' *Bulletin* No. 3, Rice Crop 1894. There is a marked falling away in the acreage of every state, but it is believed the reduction, especially so far as Louisiana is concerned, stands for more thorough culture, assuring increased yield per acre, and a higher average quality. Total area planted 197,500 acres, which, under ordinary circumstances, should yield 7,900,000 bushels, or say 625,000 barrels cleaned rice.

IOWA.—The state crop bureau report places the average condition of crops as follows: Corn, 40 per cent.; flax, 53; millet, 38; broom corn, 47; sorghum, 54; Irish potatoes, 37; sweet potatoes, 46. Threshing returns and estimates show the following average yield of harvested crops: Winter wheat, 18; spring wheat, 14; rye, 17; oats 25 bushels per acre. If these figures are sustained by the final returns this state will have over 100,000,000 bushels of oats of good quality and 11,000,000 bushels of wheat.

OHIO CROPS.—The secretary of the Ohio State Board of Agriculture, in his statement for August 1, says: Comparison is made with an average condition or prospect. Wheat 94 per cent., oats 86, timothy 77, potatoes 68, pastures 65. Wheat harvest began June 29, oats harvest July 17, barley harvest July 4, rye harvest July 2. The wheat prospect or condition August 1 shows no material change over the estimate of July 1, having advanced but one point. The August 1 report having been made after the completion of the harvest and representing returns from nearly every township in the state, is considered practically reliable. Timothy is a short crop, and pastures

are drying up or are burned out. Middle section, young clover seed and grass are almost a failure; southern section, young clover is in bad condition and the clover seed is cut very short.

SOURIS, DISTRICT OF MANITOBA.—There is a slight increase in wheat acreage, the yield being uniformly excellent (from 15 to 30 bushels per acre) and quality the same. The acreage of barley and oats shows an increase, and the yield and quality is generally fine. Hay is short in some districts, plentiful in others.

RICE.—Small shipments of this year's rice have already been received at New Orleans, but the bulk of the crop will not come in before the last of August. The New Orleans estimate of the Louisiana crop is 6,000,000 bushels, but this estimate may be exceeded or diminished according as the weather is favorable or unfavorable. The prospects for the new crop of rice are very fine. The crops on the Georgia and Carolina coasts adjacent to Savannah are in splendid condition. The rains and warm weather have brought the rice out splendidly, recovering it entirely from the effects of the cold spring nights.

MINNESOTA.—The crop conditions August 7, according to the report of Observer Beals, are as follows: The harvest is well advanced, and in a number of southern counties small grain has all been cut and stacking is well in hand. The yield of wheat, as a rule, is better than expected, and that which ripened before the excessive heat of the previous week is of a good color and has a large, plump berry, while that which ripened last week shrunk, and the quality of the berry is not as good. The corn and potato crop has been injured beyond recovery. The yields of winter wheat are reported as ranging from twenty to forty-one bushels, and spring wheat will average from twelve to twenty-two bushels.

GOVERNMENT REPORT ON CORN.—The August report of the statistician of the Department of Agriculture shows a decline in corn of nearly 26 points since July 1, the average for the entire breadth being 69.1, against 95 for the month of July. The condition August, 1893, was 87. The great decline is due almost wholly to the extensive and unprecedented severe drought that set in since the last report and to the hot dry winds that swept over the states of Nebraska, Kansas, Iowa and parts of other Western states. In some localities the crop has been injured beyond recovery, while in others timely rains would go far toward assuring fair yields. The corn averages for the principal states are: Ohio, 79; Kentucky, 80; Indiana, 83; Illinois, 75; Iowa, 45; Missouri, 82; Kansas, 49; Nebraska, 33; South Dakota, 29.

GOVERNMENT CROP REPORT.—The August report of the Department of Agriculture states that the condition of spring wheat has fallen since last report 1.3 points, being 67.1, against 68.4 for the month of July. The condition by states is as follows: Wisconsin, 79; Minnesota, 76; Iowa, 82; Kansas, 30; Nebraska, 41; South Dakota, 29; North Dakota, 75; Washington, 83; Oregon, 55. The advices as to winter wheat from correspondents and threshers indicate a good yield of excellent quality. The condition of oats has declined 1.2 points since the last report, being 76.5, against 77.7 in July. The condition for August, 1893, was 78.3. Barley is 69.8, against 76.8 last month. Rye is 91.0, substantially the same as last month. Potatoes are 74.0, against 92.3 last month. Tobacco is 79.0, against 81.0 last month.

BARLEY REPORT.—Iowa.—Western counties, 30 per cent. of an average yield, quality fine, mostly fair weight; northwestern counties, 70 per cent. of an average yield, quality fine, fair to good weight; central counties, 60 per cent. of an average yield, quality fine, light to fair weight; eastern counties, 75 per cent. of an average yield, quality fine, fair to good weight; northeastern counties, 70 per cent. of an average yield, quality fine, fair to good weight.

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els; quality fair. There never was a barley crop saved in better shape than this season's crop. D. H. STUHR, Cincinnati, Ohio.



Peter Laughlin is buying grain for T. J. Stiles at Bushton, Ill.

Mr. Dunderman is to buy grain for the new elevator at Kenwood, Iowa.

J. B. Zeches has taken charge of the O'Neill Elevator at St. Charles, Minn.

W. I. Storm has taken charge of the Putnam Elevator at Ellendale, S. D.

W. M. Adams has been appointed grain buyer for S. Y. Hyde & Co. at Delavan, Minn.

J. D. Kitt has taken charge of the Marfield Elevator Company's grain business at Parker, S. D.

W. L. Martin will have charge of the Putnam Elevator at Frederick, S. D., the coming season.

Joe Ess has been appointed agent for the Great Western Elevator Company at Waconia, Minn.

P. F. Littleton, formerly of Emmetsburg, Iowa, has taken charge of Spies & Son's elevator at Osgood.

Lyman Downing, formerly of St. Charles, Minn., has taken charge of the O'Neill Elevator at Winona.

C. P. Walker, formerly of Springfield, Ill., has accepted the position of grain inspector at Kansas City, Mo.

S. A. Longnecker of Redwood Falls, Minn., has been appointed grain buyer for the Southwestern Elevator Company at Enderline, N. D.

Wm. M. Hirsch, manager of the Farmers' Grain Exchange at Spring Valley, Ill., has been nominated for Congress on the Populist ticket.

J. E. Teasdale, formerly of Canton, Mo., has taken charge of the hay department of the J. H. Teasdale Commission Company at St. Louis, Mo.

B. Wamstad, who has been in the employ of Cargill & Co. at Ramona, S. D., has accepted a position with the same company at Clifford, N. D.

E. F. Bolte, formerly of East Grand Forks, Minn., has accepted the management of the Monarch Elevator Company's business at Mapleton, N. D.

James O'Brien, formerly in the employ of Cargill & Co. at Woonsocket, S. D., has taken charge of that company's grain warehouse at Grand Meadow, Minn.

Harry Wetzel, formerly an employee of the Moline Elevator Company of Moline, Ill., has accepted a position with the Smith-Hill Elevator Company at Quincy.

George R. Roberts has accepted a position with the McFarlan Grain Company at Panora, Iowa, succeeding J. C. Riddle, who has severed his connection with that company.

George Barnum has resigned his position with the Duluth Elevator Company to accept the local management of the St. Anthony & Dakota Elevator Company at Duluth.

L. Callison, formerly in the employ of the Farmers' Independent Elevator Company at Rock Valley, Iowa, has been engaged as manager of Bauman Bros' elevator at Hull, Iowa.

E. A. Childs, a member of the firm of Childs & Heinrich of Glencoe, Minn., who operate several elevators, is being urged as a candidate for Congress on the Democratic ticket.

Joseph A. Morrell, for 17 years a successful grain buyer at Winona, Minn., has accepted the management of the H. J. O'Neill Grain Company's business at Duluth. C. H. Ehmkke & Son have succeeded to his business at Winona.

O. Burchard, of Germany, has been sampling American clover seed, and found from 3 to 12 per cent. of impurities in it, and the number of species of weed seeds varied from thirteen to thirty-six. Samples were taken from the leading states of the country. He must have bought his samples of the seed adulterators.

Farmers of Delaware county, Indiana, who prefer to buy seed wheat from unreliable traveling agents are being swindled. Agents are canvassing with a fine-looking grade of wheat, which they allege will yield an average of fifty bushels to the acre. The grains are larger and there are more of them on the stalk. The farmer must contract to let the agent have one-half of the crop raised for seed, but he will be lucky if the fellow don't get the farm.



PUBLISHED ON THE FIFTEENTH OF EACH MONTH BY

MITCHELL BROS. COMPANY
(INCORPORATED.)

OFFICE:

Howland Block, 184 and 186 Dearborn St.,
CHICAGO, ILL.

Subscription Price, - - - \$1.00 per Year.

English and Foreign Subscription, - - - 1.50 " "

English and Foreign Subscriptions may be sent to W. H. Smith & Son, 186 Strand, London, W. C., Eng.

A. J. MITCHELL, - - - Business Manager.
HARLEY B. MITCHELL, - - - Editor.
CHARLES S. CLARK, - - Assistant Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., AUGUST 15, 1894.

OUR GROWTH.

This issue of the AMERICAN ELEVATOR AND GRAIN TRADE goes to its thousands of readers enlarged in size and, we trust, with no deterioration in the character of its contents. Its increase in size has been rendered imperative, not only by the widening interest it has awakened in its special field, but also by the increase of advertising patronage that has naturally followed the advancing position it holds in public esteem.

Substantial evidences of such esteem are, of course, always welcome to the publisher; but they are doubly so in times such as the American people have just passed through. The growth of this journal in the twelve years of its life has not been "phenomenal" or surprising; it has been slow, like that of all hardy trees, and it has been continuous. No better proof could be asked or furnished of the character it has acquired; and to justify and increase the respect of readers and advertisers shall be its constant aim.

END OF THE ELEVATOR MUDDLE.

The long warfare between the Chicago Board of Trade and the Chicago elevator owners came to an end August 13 by a compromise. The points of the agreement reached are that the elevator people shall buy grain only at competing points, that a supervising inspector may be placed in each elevator, and that each subsequent ten days' storage shall be charged one-fourth instead of one-third of a cent, making storage charges 3 cents per bushel per year. The initial three-quarters of a cent charge still stands, and this was one of the chief points of complaint by the receivers.

If either side may be said to have won a victory it is the elevator people. The way had been paved for the compromise by the action of the Board of Trade on July 24, making seven elevators regular without their having asked to be so made. One of the curiosities of the warfare was an advertisement in the Chicago papers,

inserted by the Board of Trade, setting forth that it wanted "grain warehouses or elevators of class A, situated within the city limits," etc. Evidently the replies were not satisfactory or perhaps none were received, as the action making seven of the houses regular was taken a week later.

Apparently the grain trade of Chicago is pretty much in the same condition that it was before the fight on the elevators was commenced. The elevator people have made slight concessions, but they are still in a position to boss the grain trade of the city.

ELEVATOR FIRES AND THE DROUTH.

The almost unprecedented dry weather of the summer has had a very marked effect on the number of elevator fires. It will be noticed that other similar classes of establishments have suffered equally where the exposure has been equally great. The dry weather made everything as dry as tinder, and the constant exposure of elevators to locomotive sparks did the rest, with the result of swelling the losses very materially the past month. Locomotive sparks, as shown in our last issue, constitute the cause of one-fourth of all elevator fires, and with circumstances of extraordinary drouth but one result can follow—an increase in the number of fires. But the fact that ordinarily so large a percentage of the fires arise from this cause should furnish an incentive to elevator men to guard as much as possible against this source of danger by sheathing their houses in iron or steel.

PULL THE STRING.

Most of this issue of the AMERICAN ELEVATOR AND GRAIN TRADE is, and all future issues will be, wrapped with the Williams wrapper. This is a big little invention that deserves credit for removing one of the common annoyances of life. You have trouble in getting magazines and periodicals out of their wrappers, do you not? It is quite a job and is not always successful, even with a penknife, without cutting the pages more or less. Yet rolling the periodical firmly inside a large wrapper is the only satisfactory way of sending it by the publisher of a periodical whose pages are of a generous size.

If you will look at the wrapper that encloses this issue you will find a crease showing the presence of a string. The wrapper is notched at each end of the string. Pull one end of the string and the wrapper is torn off. No penknife, no cutting, no trouble, no profanity. The inventor of the Williams wrapper deserves the thanks of the readers and publishers of periodicals.

THE MAN-WITH-A-SCOOP.

The harvest time of the man-with-a-scoop and the irregular buyer is again upon us, and the regular country buyer is forced to pay more for grain than the prices ruling at central markets justify. With an office in his hat and storage in the street or in the carriers' cars, the irregular buyer makes it exceedingly unpleasant for the regular dealer at many country points.

The expenses of the irregular buyer are very small, he has nothing to bind him to the town, and although he frequently pays high prices, he gets it all back by trickery. Many of them have no regard for a good reputation and willingly sacrifice any interest entrusted to them for personal gain. Some of these irregular dealers are of the fly-by-night type of schemers and are a disgrace to the trade.

The irregular dealers pay no taxes or insurance, nor do they bear any of the burdens of government in the town or county where they do business only while the grain is being rushed to market. This is wrong. The regular dealer contributes much to the welfare of the commu-

nity in which he resides, and is entitled to protection for his business from the sharks who go about the country skimming the cream from the grain business at many points. By levying a license of \$25 to \$50 upon every transient buyer any town can and every one should protect its regular dealers.

NEW IMPORT DUTIES ON GRAIN.

The Senate's tariff bill, which was swallowed whole by the House of Representatives on the 13th inst., makes a number of reductions in the import duties on grain, hay and seeds, but the duties are not made low enough to encourage the importation of very large quantities of grain. The duties on barley and barley malt are only slightly reduced. The duty on hay is fixed at 20 per centum ad valorem, the present law makes it \$4. Straw is admitted free by the Senate bill, while under the present law a duty of 30 per centum is levied.

The old duty on barley is 30 cents per bushel of 48 pounds, on barley malt 45 cents per bushel of 34 pounds. The duty provided by the bill just passed by both houses is 30 per centum ad valorem on barley, barley pearled, patent or hulled, and 40 per centum on barley malt.

The duty on buckwheat, corn, cornmeal, oats, rye, rye flour, wheat and wheat flour is fixed at 20 per centum ad valorem, but each of these products will be admitted free of duty from any country which imposes no import duty on the like product when exported from the United States.

The duty on clean rice is reduced to one and one-half cent per pound, uncleared rice one cent, and rice paddy three-fourths of a cent.

The duty on flaxseed, poppy seed and other oil seeds not specially provided for is 20 cents per bushel of 56 pounds. Grass, hemp and all other seeds not edible will be admitted free.

The only fight made by the members of the grain trade was for a high duty on hay and barley. Petitions for ample protection and protests against any reduction in the present duties on these articles were sent to Washington without number. The effect is seen in the small reduction made.

ANTI-OPTION LEGISLATION.

At this writing there appears little chance of anti-option legislation this session of Congress. The Senate committee on agriculture agreed to permit the bill to be reported, but it was understood that this action did not bind the members to support the measure. The Senate bill has a very important amendment which provides that the delivery of the articles affected by the bill may be made at any place in the United States other than the point designated in the contract without incurring the penalties provided in the bill. This is Senator Washburn's neat way of virtually eliminating flour from the operation of the bill. Of course delivery on future sales of flour is almost invariably made at some point distant from the mill.

Senator Davis of Minnesota has also introduced a bill sent him by Mr. Dousman of Chicago. It is different from the Hatch bill in many features. The definition of options and futures is the same and the list of products which the bill includes is the same as the Hatch bill, except that flour is left out and grass seed and flaxseed are inserted. The method of collecting the revenue, however, is not by internal revenue stamps as in the Hatch bill. The records of boards of trade are to be kept open for inspection of internal revenue agents, and there is a tax of 50 cents for each sale of 100 bales of cotton, 250 barrels of pork, 250 tierces of lard, 5,000 bushels of wheat, car of seed or 50,000 pounds of bacon. The annual license is \$10, the bond of all dealers is \$1,000, and the section imposes a fine of \$100 to \$1,000 for a violation of the law. There is a tax of \$100

upon all future sales which the vendor is not able to deliver, and a further tax of \$500 in case he has a future contract from another vendor and fails to deliver.

Next session promises to see some lively times, as it is understood that hearings will be given those interested in anti-option legislation.

BULLS AND THE BUCKET SHOPS.

Whenever the bulls get in their work in first-class shape, a lot of busted bucket shops will be found to have been landed over the fence. The late flurry in corn was followed by the usual result. The bucket shops were tossed right and left and their patrons lost their only chance of "playing even."

Of course the reason is apparent why the bucket shop cannot stand a vigorous bull charge. Such of the public as speculate almost invariably take the bull side. In ordinary, normal times this fact simply means fish for the bucket shopper's net. But when the market starts straight up and keeps up even for 24 hours, it seals the fate of the shop, and its keeper either lies down or skips out, and sometimes does both. Of course his enthusiastic bull patrons bewail the loss of their paper profits; and it does seem hard that they should lose their one chance in the grab-bag. But the crop of those who steer themselves against the bucket shop does not seem to suffer from drouth, the Russian thistle, or common sense; and the successor of the busted concern always finds it ready for harvest. And he harvests it until the first good bull rise causes history to repeat itself.

COST OF EXPORTING WHEAT.

Since the Minnesota Railroad and Warehouse Commission took to issuing regular statements of the cost of exporting wheat the farmer agitators of the Northwest have ceased to state in large numbers the enormous profits of the wheat exporters. These statements take the wind all out of the sails of the agitators who have depended upon windy misstatements about this trade to blow them into the harbor of Farmers' Goodwill. The long screeds filled with misstatements and fallacious arguments are issued no more; the agitators have been compelled to devise new lies to lead the farmers.

The reports of the actual prices ruling at Duluth and Liverpool show that at no time are the two markets very far apart, and the report on intermediate charges show that the cost of marketing grain has been cut in two several times during recent years. The report of June 1 showed that the cost of moving a bushel of wheat from Duluth to Liverpool was nearly 12 cents, and the differences between the markets enough more to insure a profit of about $\frac{3}{4}$ of a cent. The following statement shows the price of No. 1 hard wheat at Duluth, the intermediate charges and the price of an actual sale of 16,000 bushels of the same grade in Liverpool for delivery c. i. f. London:

	Cents.
July 24—Price per bushel No. 1 hard in Duluth	.5725
Duluth elevator charges, weighing and inspection	.0130
Lake freight and insurance, Duluth to Buffalo	.0185
Buffalo elevator charges, commissions, etc.	.0100
Canal freights and insurance, Buffalo to New York	.0300
New York elevator charges, etc., viz., weighing, transferring, demurrage, towing, trimming, etc.	.0150
Ocean freight and insurance, New York to London	.0525
Loss in weight, Duluth to London	.0050
Cost in London c. i. f.	.7165
July 24—2,000 quarters (16,000 bushels) sold in Liverpool for London delivery c. i. f. (cost, freight and insurance) at 24 shillings per quarter (or 72 cents per bushel)	.7200
Gain per bushel in transaction about $\frac{1}{2}$ cent	.0035

This shows the cost of transporting wheat from Duluth to Liverpool to be .144 or about one-half what a railroad would charge to carry the grain to New York. This seems very cheap, but further reductions will be made. The ele-

vator charges at Duluth have already been reduced and grain is being transferred at Buffalo gratis. As soon as Canada gets 20 feet of water to Montreal all export grain will go via that port, and the cost of transporting grain from Duluth to Liverpool will at most be not over .10 cents a bushel or about one-third the present average cost to transport grain from country stations to Duluth.

The statement shows that the profit was about one-third of cent a bushel. The whole profit was considerably less than the loss in weight between Duluth and London. The profit was less than one-fifth the cost of freight and insurance between Duluth and Buffalo and only a fourth of the charges at New York. Almost everybody seems to get a greater slice out of the grain than the owner.

LOWER FREIGHT RATES ON GRAIN.

The continued depression in the price of wheat is prompting shippers to do considerable talking about the high freight rates which have been maintained throughout the 50 per cent. decline in the value of wheat which has occurred during the two last years. Shippers in the Northwest, the Southwest and the Pacific Coast are convinced that the roads can well afford to carry wheat at a lower rate, and petitions for reductions are being talked of.

The charges for some hauls in the Northwest as well as on the Pacific Coast are extremely exorbitant and out of all proportion to the charges for hauling wheat the same distance on other roads; they are also too high in the Southwest. The carriers' old rule for fixing rates—"What the traffic will stand"—could be applied to the re-establishment of the rates on wheat with satisfactory effect.

The reduction of rates by the carriers would encourage shipments and insure larger exports. In cases where the freight rate is so high shippers will find it more profitable to feed wheat and many will take this course. In Nebraska and Kansas a reduction has been asked, but any such move has been headed off in Iowa by the action of the carriers in asking permission to increase the rates on grain. It is not likely the railroad commissioners will grant an increase, but the application will give them good grounds for declining to make the reduction which in justice to the grain trade should have been made some time ago.

SOLICITING SHIPMENTS FROM FARMERS.

A Northwest shipper airs his grievance against a Chicago commission house in "Communications" of this number, and gives a letter sent out by the offending party which should be read by every country shipper. It shows some of the arguments and misstatements used to induce the farmer to ignore the regular country buyer and ship direct to a commission man at a terminal market.

Some of the practices which the commission man leaves the reader to imply are general with the country buyers, may have been put into force at frontier points, where competition was very small, but it is to be doubted. All country dealers are not supposed to be infallible and above reproach. They may make errors and practice trickery, but the great majority are above such work; they are also above throwing mud at all commission men because one is caught in trickery.

Commission men might secure business without maligning all regular country dealers, and the business secured might be of a better class. However, country dealers can rest assured that any commission man who secures patrons through his defamation of them will always be watched closely by the customers so secured, and will be condemned for trickery on very slight evidence.

LOWER ELEVATOR CHARGES AT DULUTH.

The new departure of the Great Northern Railroad in deciding to operate its elevator on the same principle that it runs its freight houses would seem almost certain to have a far-reaching effect on the terminal elevator business sooner or later. Can anyone give a good and substantial reason why a railroad should not run a terminal elevator on the same basis that it does its other storage houses?

A great reduction has been made in the rates for handling sound grain through the Great Northern elevators at West Superior, Wis. Hereafter the charge for receiving, elevating and discharging (including fifteen days' free storage) per bushel $\frac{1}{2}$ cent. Storage for each succeeding thirty days, or part thereof, per bushel $\frac{1}{2}$ cent. No charge for cleaning and blowing. From May 15 to December 1 the right is reserved to limit storage and charges at above rates to forty-five days.

The Great Northern elevators have a capacity of 3,500,000 bushels, and are operated under the supervision of the Minnesota Railroad and Warehouse Commission, and are "regular" on the Duluth Board of Trade. The total capacity of the elevators at Duluth and Superior is 27,400,000, and it is thought that all the other elevator companies will meet the cut. If they do this, which seems necessary if they desire to continue to do a public warehouse business, the Minneapolis elevator companies will probably follow and eventually the reduction in storage rates may reach Chicago. The reduction in elevator charges is in line with the great decline which has occurred in the price of wheat during the two last years. To be consistent the Great Northern should also reduce the freight rates.

GRAIN DEALERS PROSPERING.

If any pessimist thinks that stagnation encumbers the grain trade and that the future prospects are dark and gloomy, he should peruse our record of new firms, new elevators, changes in firms and improvements in elevators. It contains notices of more improvements than any preceding number, showing that there is much greater activity in the elevator building trade than ever before. There are many large and medium sized elevators being constructed.

The elevator men of the winter wheat belt have also been enjoying a good business, and the reports received indicate that it will continue. Their activity in the making of improvements shows that they have perfect confidence in the future of the business.

THE CORN FLURRY.

The advance of 7 cents in corn in one day was one of the most sensational episodes that has lately occurred on the Chicago Board of Trade. With the causes leading to this phenomenal advance and the history of the market since, the reader is familiar. Of course the drouth is responsible for a condition of the market where corn sells from 2 to 4 cents above wheat and maintains its price. That it should do so for any length of time appears impossible. It would simply lead to a reversal of the present practice of feeding corn, and a very large sized hole would be made in the wheat crop. We think it certain that if corn is to maintain a price of 55 cents, wheat cannot be held down to any such level. The rub comes in the price of corn. Does the damage done justify such a price for corn, and if so, how can wheat be held to a lower price than corn? Almost everyone recognizes the incongruity of the situation. Can it continue or must wheat and corn again pass each other and prices become adjusted more in accordance with intrinsic value? This is the conundrum that the public is wrestling with just now.

EDITORIAL MENTION

SEND us the news of your district that will interest grain dealers.

IF you have opinions on any subject of interest to the trade let us have them for publication.

ENOUGH exaggerated price-raising misstatements have been made about corn during the last thirty days to send the entire race to perdition.

WILL elevator men organize a mutual fire insurance company or continue to pay exorbitant rates to stock companies? They have the say, and as they determine, so shall it be.

A MEETING of the Hay and Straw Dealers' Association will be held at the Hotel Vanderbilt, Syracuse, N. Y., August 21 at 11 o'clock. Every dealer who possibly can should attend.

THE Wiggins Ferry Company have announced a reduction from $1\frac{1}{2}$ and 2 cents to 1 cent per 100 pounds in the rate between St. Louis and East St. Louis. This reduces the rate practically to \$4 a car, whereas it averaged from \$6 to \$7 a car.

DO NOT load grain into a car without first examining it closely and coopering it well. Old and poorly coopered cars frequently leave indisputable evidence of weakness along the tracks entering this city. The shipper suffers the loss not the carrier.

CHICAGO's great short seller has been acting in such a manner that for decency's sake he was forcibly ejected from the Board of Trade building and suspended from the board for 60 days. The business of "plunging" does not appear conducive to the symmetrical development of the amenities of life.

C. D. HOLBROOK & Co., Minneapolis, Minn., have issued a neat catalogue of mill and elevator machinery and supplies. It comprises about everything needed in or about an elevator. They are also Western agents for the Sterling Charter Gasoline Engines. They will send a copy of this catalogue on receipt of a request.

THE Kansas Board of Railroad Commissioners attempted to compel the railroads to put in track scales at Kansas City elevators, but finally gave it up. The hopper scales in the cupolas of the large elevators at that point are far more reliable. If the weighmen are distrusted state weighmen should be appointed to assist in the weighing and to keep a separate record.

ANOTHER panacea for all the ills grain growers imagine themselves to be heir to has been discovered by a Northwestern agitator who declares "that if the grading of wheat was only abolished half the trouble would be over. The man who established grades was the boss fiend of the whole business." This is harsh praise of the benefactors of the grain trade who developed the system of grain inspection.

A GRAIN dealer at Atlantic City, N. J., has made an innovation in the elevator business. He had his elevator divided into a number of separate apartments which he let to all comers for a moderate sum. A Kansas firm which built a 100,000-bushel elevator with many small bins to be let to farmers is said to have found the plan a great success. This plan was suggested for a terminal storage elevator at Chicago some

years ago, but it never got beyond a suggestion. When a country shipper has grain of such an extra fine quality that it will prove profitable to persevere its identity he can keep it at home or store it in a special bin and sell by sample.

A GRAIN importer of Great Britain while traveling in Manitoba recently gave out the valuable information at Winnipeg that New York exporters mix Manitoba and Argentine wheat and sell it abroad as the best. As this country does not import wheat from the Argentine Republic it may be that the mixing is done after the wheat arrives in England. The mixing is always done by the other fellow.

H. V. JONES, commercial editor of the Minneapolis *Journal*, does not believe the short crop estimates for the wheat yield of Minnesota and the Dakotas have foundation in fact. He places the yield of these three states at 120,000,000 bushels, giving 50,000,000 each to Minnesota and North Dakota, and 20,000,000 bushels to South Dakota where the drought inflicted very material damage. Mr. Jones' estimates in years past have been pretty close to the actual result.

THE attention of our readers is invited to the card of Messrs. Shanks, Phillips & Co. of Memphis, Tenn., which appears in another column. This firm has been prominent for many years as commission handlers of all kinds of hay and grain, their dealings extending practically over all of the Northwestern states. Well equipped with capital, receiving and shipping facilities, they are in a position to render valuable service to the producers of the Northwest. They will be pleased to correspond with parties wishing to ship to their market.

THE grain shippers' duty, according to the Minnesota Railroad and Warehouse Commissioners, is to fasten upon the door of every car loaded with grain a card bearing the number and initials of the car, with the date of the shipment and the actual weight of the grain. This will enable the weighman to locate the cause of the difference between his weights and the shipper's weights before the identity of the grain is lost, and to determine beyond a doubt the weight of the shipment. The practice is a good one and is of advantage to the shipper as well as the receiver.

THE seed trade and the grain dealers of the Pacific Coast are using the cental system, and find it far more satisfactory than the old bushel with its varying weight. The standard bushel for the different cereals are different for the different states, and serve only to make confusion, add work to the grain dealer's business and increase the opportunities for errors in his accounts. Grain is bought by weight, shipped by weight and weighed into the terminal elevator. It is never measured, but dealers go to the extra trouble of reducing the weight to what they think is a unit of measure. If all grain was sold by the 100 pounds the business would be greatly facilitated and simplified.

ACCORDING to the report of the Bureau of Statistics, breadstuffs to the value of \$8,138,593 were exported during July, against an amount valued at \$19,416,260 exported during July, 1893; and for the seven months ending July 31 breadstuffs valued at \$74,497,378 were exported, against an amount valued at \$106,730,754 in the same time of 1893. In July 5,547,944 bushels of wheat, valued at \$3,372,672, were exported, against 12,444,713 bushels, valued at \$9,183,723, in July, 1893; and during the seven months ending with July 36,361,527 bushels, valued at \$22,776,716, were exported, against 63,353,078 bushels, valued at \$48,777,148, in the same time of 1893. In the seven months ending July 31, 338,109 bushels of oats and 232 of rye, 35,314,261 of corn and 1,153,602 of barley

were exported, against 2,755,571 bushels of oats, 598,652 of rye, 15,363,477 of corn and 2,475,549 of barley exported in the same time of 1893.

TOO MUCH stress cannot be laid upon the value of having water handy in and about all elevators. The R. G. & C. H. Risser Company of Kankakee, Ill., saved their property from fire on July 11 by having a small supply of water handy. The time to arrest a fire is when it starts. Everyone knows how to use a bucket, and if buckets and barrels well filled with salt water are handy when an incipient blaze is discovered the chances are greatly in favor of its being extinguished.

ST. LOUIS grain men are complaining that some of the roads are discriminating against that city and in favor of Chicago, and claim that they know of instances where grain has been given a better rate from Kansas City to Chicago than to St. Louis. The railway men say there is nothing in the complaint, and that the fact of grain going to Chicago from territory naturally tributary to St. Louis is owing simply to the activity of Chicago elevator men to keep their houses full to earn storage.

WILL the grain dealers of the country never organize against the many evils which beset the trade, or will they peacefully submit to the present abuses, and in submitting encourage the imposition of other and greater abuses of which they now have no knowledge? If you are in favor of tolerating these abuses and propose to continue in the same mind until all your profits and capital have disappeared through these channels, you must have very positive opinions regarding such action. If you have any good reasons for such an unreasonable course we would be pleased to have them for publication.

EVERYONE who has anything to do with accounts of grain elevators in which grain is weighed upon scales, the beam of which is graduated to weigh no amount less than two pounds, will find a complete account of an unfailing method of detecting transpositions in the figures indicating the amount of corn, barley, rye and oats, elsewhere in this number. The method of detection was discovered by Mr. Geo. B. Carter of the Counselman Elevator Company, who will receive the hearty thanks of every elevator accountant who reads this number. Why the method of detecting transpositions and errors in recording is always reliable is a mystery.

A COMMISSION firm which sends considerable printed matter to country grain dealers claims that "experience for the last three years has shown profits in favor of dealers who accepted bids, rather than those who consigned grain," and asks, "Is it not good policy to accept a sure profit?" Every shipper will give an affirmative reply to this question, but upon second thought the question will arise, "Why will I not have a profit if I consign?" Why is this commission man so anxious about the profits of the country shipper? There seems to be no good reason why the country shipper should refrain from consigning, nor why he should not realize as much as by accepting track bids.

THE Supreme Court of North Dakota has affirmed a curious finding of the lower court in a margin case. The case was that of David Dows & Co. vs. Samuel Glaspell. Glaspell is a lawyer of Jamestown who dabbled in wheat, sending his orders to the Duluth house of David Dows & Co. Glaspell failed to put up margins and Dows & Co. closed out his trades at a loss of \$7,500, which amount they sued him for. Glaspell admitted the transactions, but claimed that they were gambling deals and therefore void. Moreover, he set up a counter claim for \$11,000 margins which he had put up and lost. The district court dismissed the suit of Dows &

Co., and also gave judgment for the plaintiff on the counter claim of Glaspell. This judgment the Superior Court now affirms. Accordingly, the doctrine in North Dakota is that a man cannot recover a margin put up in a gambling deal and lost, nor can he be made to pay a margin which his broker puts up for him.

THE Chicago *Herald* makes the direct accusation that there is a "leak" in Washington in regard to the monthly crop report. The "point" given out in Chicago before the issue of the monthly report was that corn would show 68. The report was 69.1. The point on the condition of spring wheat was that it would show a loss of one point. It actually showed a loss of 1.3 points. The government version of these coincidences has been given. The *Herald* thinks there is no coincidence about it. The generally correctness of the pointers given out at least shows that the private bureau that is operated from Chicago is running a good opposition business to the government.

A PUBLIC elevator man of Chicago claims to be buying 5,000 to 10,000 bushels of wheat annually to make up shortages in his storage account. This is all wrong; if the speculators want to hold grain all through the period of its greatest shrinkage let them stand the shrinkage. If storage elevator companies would make all receipts subject to a dockage of .001 per centum if withdrawn in two months or less, .002 for more than two and less than four months, .003 for any time over four months, dockage to be made at delivery, this would relieve all terminal elevator men of the necessity of docking receipts for future shrinkage and place the loss from this source where it belongs, upon the owners of grain.

THE elevator war at Buffalo at present gives promise of breaking up the pool. Since the opening of navigation rate-cutting has been indulged in by all the elevators to meet the competition of the floating transfer elevators. The new Kellogg elevator finally withdrew from the pool, and the managers of the pool fearing further withdrawals, have attempted to bring the long battle to a crisis by declaring elevation for transfer free and fixing a rate of $\frac{1}{8}$ of a cent for ten days' storage. If grain shippers will patronize the floating elevators at the reasonable rate asked for transfer they will insure the continuation of reasonable rates. If, on the other hand, they accept the offer of the pool for free transfer, it will be for a short time only, as the old exorbitant rates will be charged as soon as the pool regains control.

HAY IMPORTS EXCEED EXPORTS.

Hay aggregating 13,298 tons, valued at \$112,246, was imported during June, against 13,664 tons, valued at \$136,291, imported in June, 1893; and during the twelve months ending with June 86,784 tons, valued at \$761,937, were imported, against 104,257 tons, valued at \$964,755, imported during the twelve months ending with June, 1893.

Of imported hay we exported none in June against 12 tons exported in June, 1893; and during the twelve months ending with June 229 tons, valued at \$2,026, were exported, against 12 tons exported during the twelve months ending with June, 1893.

We exported 3,984 tons of domestic hay, valued at \$67,493, in June, against 2,726 tons, valued at \$41,744, in June, 1893; and during the twelve months ending with June 54,431 tons, valued at \$890,503, were exported, against 33,084 tons, valued at \$519,640, exported during the corresponding months ending with June, 1893.

A Western exchange warbles in this wise: "Backward, turn backward, O Time, in your flight; give us a rip-snorting rainstorm to-night. Open the heavenly floodgates, I pray; let the rain pour for a night and a day. I am so weary of skies that are fair; weary of breathing the dirt in the air; weary of sowing to harvest no grain; give us a rain, mister, give us a rain."

DEPARTURE BY THE DEPARTMENT OF AGRICULTURE.

Farmers will benefit by a new plan at which the department of agriculture is now making a start. The purpose of it is to enable them to determine the value of seeds before they buy and plant them. At present the planting is a sort of gamble from their point of view. They put into the ground such seeds as may happen to be sold to them, trusting that they will sprout and turn out as advertised. Unfortunately seeds are largely adulterated. Then, too, unscrupulous seedsmen do not hesitate to cheat the unsophisticated tiller of the soil by mixing with good stuff a liberal percentage of stale stock that will never germinate. From this time on, however, the farmer may secure himself against such frauds by sending samples of the seeds he thinks of purchasing to the department of agriculture. In return he will get a statement of their exact value—i. e., how pure they are, and what percentage of them will come up. Suppose, for example, that a traveling salesman offers him some clover seed, which is more adulterated than any other kind. Before buying, he mails an ounce of it to Washington and within thirty days he receives a report of it, saying that the stuff contains 30 per cent. of various seeds not of the clover plant, as well as 10 per cent. gravel, and that only one-half of the remaining 60 per cent will ever sprout.

Thus the farmer escapes being swindled. The business of testing agricultural seeds scientifically, with a view to determining their value, has been carried on for some time past in Europe. In Germany they have so-called "Seed Control Stations," where seeds are examined. First they are tried for purity—i. e., freedom from adulterants, gravel, weed seeds, etc. Next their germinating power is tested to find out what percentage of them will sprout. Record is made at the same time of the rapidity with which they germinate, this point indicating the degree of vigor they possess.

This system will be reproduced in a somewhat modified form by the department of agriculture, which is now establishing a laboratory for that purpose.

IMPORTS AND EXPORTS OF FOREIGN BREADSTUFFS.

The total value of breadstuffs imported during June, according to the last report of the Bureau of Statistics, was \$160,427, against an amount valued at \$194,000 imported in June 1893; and during the twelve months ending with June breadstuffs valued at \$1,981,317 were imported, against an amount valued at \$2,612,697 imported during the corresponding months ending with June, 1893.

Barley aggregating 791,061 bushels, valued at \$358,744, was imported during the twelve months ending with June, against 1,970,129 bushels, valued at \$921,605, imported during the corresponding months ending with June 1893. Corn aggregating 2,199 bushels, valued at \$1,508, was imported during the twelve months ending with June, against 1,881 bushels, valued at \$1,265, imported during the twelve months ending with June, 1893.

We imported 8,345 bushels of oats, valued at \$3,928, during the twelve months ending with June, against 21,309 bushels, valued at \$8,897, imported during the twelve months ending with June preceding. We imported 50 bushels of rye during the twelve months ending with June, against 8,598 bushels, valued at \$7,055, imported during the twelve months ending with June preceding.

Wheat aggregating 1,181,060 bushels, valued at \$769,177, was imported during the twelve months ending with June, against 966,280 bushels, valued at \$707,553, imported during the corresponding months ending with June preceding.

Of imported breadstuffs an amount valued at \$98,121 was exported during June, against exports valued at \$159 in June, 1893; and during the twelve months ending with June imported breadstuffs valued at \$165,306 were exported, against exports valued at \$425,279 during the twelve months ending with June, 1893. Imported barley aggregating 30,412 bushels, valued at \$15,224, was exported during the twelve months ending with June, against 33,983 bushels,

valued at \$16,993, exported during the twelve months ending with June, 1893. Imported wheat amounting to 216,420 bushels, valued at \$131,492, was exported during the twelve months ending with June, against 572,750 bushels, valued at \$393,943, exported during the twelve months ending with June, 1893.

THE RUSSIAN THISTLE.

The Russian thistle has become abundant over a large extent of country in the Dakotas, and has also been found in Minnesota, Wisconsin, Iowa, Nebraska, and Kansas. It has not yet been reported as found in Illinois, but it is easily possible that it may now be growing in the state. The most probable location would be along the lines of railroads in Northern Illinois, although the seeds may have been in grain or grass seed shipped from the infested region. The plant is said to have been brought to this country in flaxseed sown in Southeastern Dakota in 1873. Perhaps the expenditure of one dollar's worth of work in 1874 would have eradicated the now serious pest. It is now doubtful if it will ever be eradicated.

When mature in September or October the plant looks somewhat like the common tumble weed of the West. It is often two or three feet high and twice as much in diameter. The color of the mature plant is crimson. The number of seeds produced by one plant often reaches many thousands. When the plant is young it is readily eaten by farm animals.

THE SHORT SELLER.

Congressman Harter in his speech on the Hatch bill put in a few words for the short seller. He said:

"I admire the short seller. I sympathize with the short seller. I think the poor devil deserves sympathy. It is he who is always in the most dangerous position. He is like the man in a forlorn hope in time of battle. He cannot often hope to be a winner. In the first place he develops a new demand for the grain he sells, and that puts up the price of it. Why? Because in the first place he cannot sell unless there is a buyer, and by his own short selling he makes himself a positive and anxious buyer; later on he must be a buyer no matter whether he wishes or not. In every time of disaster, in the hour of panic, in the midst of bank disturbances, who is it, I ask you, who maintains the prices of stocks, the price of cotton, the price of wheat and of corn? It is the short seller, and the short seller alone."

"When everybody else is panic stricken; when nobody else is able to buy; when those who have already bought are disturbed, or perhaps bankrupt, in their efforts to carry what they have bought, there is nobody to go in and stand under that market for the farmer and the planter except the short seller. We ought to sing praises to the short seller. If there is any man who deserves the thanks and the blessings of the planters and the farmers it is the man who has the courage to go on the Exchange and sell their products 'short.'"

The floating and storage elevators at Buffalo are as much at odds as ever. Rate of elevation is still $\frac{1}{8}$ cent per bushel where the grain is shipped directly out.

George Guy, a farmer, has begun two suits against Owen Hurd, of Walton, Indiana, demanding \$10,000 in each case. Hurd is a grain dealer and purchased a load of wheat from Guy. After Guy had received the money for the wheat and departed Hurd missed a \$500 roll of bills which he carried in his pocket. He caused Guy's arrest and imprisonment on the charge of stealing the money, which was afterward found at Hurd's home. The suits are for false imprisonment and slander.

Recent reports from Indianapolis state that the farmers of Indiana, for the first time in the history of the state, are feeding their wheat to hogs and selling their corn. Wheat brings 43 cents per bushel, when delivered at the country stations, and corn sells readily at from 45 to 47 cents. The farmers say that one bushel of wheat contains as much nutriment as two bushels of corn, and, as hogs are bringing good prices, and corn is higher than wheat, it is economy to feed the latter and sell the corn.

RANGE OF PRICES AT CHICAGO.

The daily range of prices for cash grain at Chicago since July 15 has been as follows:

July	NO. 2 RED W. WHT.		NO. 2 SPG WHEAT.		NO. 2 CORN.		NO. 2 OATS.		NO. 2 BYE.		NO. 3 BARLEY		NO. 1 FLAXSEED	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
15	55 1/2	56 1/2	75 1/2	85 1/2	42 1/2	43 1/2	45	45	130	130	130	130	130	130
16	55 1/2	56 1/2	75 1/2	85 1/2	42 1/2	43 1/2	45	45	131	131	131	131	131	131
17	55 1/2	56 1/2	75 1/2	85 1/2	42 1/2	43 1/2	45	45	131	131	131	131	131	131
18	54 1/2	55 1/2	42 1/2	43 1/2	42 1/2	43 1/2	45	45	130	130	130	130	130	130
19	54 1/2	55 1/2	56 1/2	56 1/2	42 1/2	42 1/2	45	45	130	130	130	130	130	130
20	54 1/2	55 1/2	58 1/2	58 1/2	41 1/2	42 1/2	31 1/2	31 1/2	128	128	128	128	128	128
21	52 1/2	54	52 1/2	54	42 1/2	42 1/2	40	40	128	128	128	128	128	128
22	52 1/2	54	52 1/2	54	42 1/2	42 1/2	40	40	128	128	128	128	128	128
23	52 1/2	54	42 1/2	43 1/2	40	40	40	40	125	126	126	126	126	126
24	52 1/2	53	42 1/2	43 1/2	40	40	40 1/2	40 1/2	118	118 1/2	118 1/2	118 1/2	118 1/2	118 1/2
25	52 1/2	53	51 1/2	54 1/2	43 1/2	44 1/2	30 1/2	40	40	45	46	121	122	122
26	51 1/2	52 1/2	50 1/2	52 1/2	43 1/2	43 1/2	30	3	40	40	122	122	122	122
27	51 1/2	53	50 1/2	53 1/2	44 1/2	45 1/2	30	31 1/2	40	40	124	124	124	124
28	51 1/2	52	44 1/2	44 1/2	29	31 1/2	40	40	122	122	122	122	122	122
29	51 1/2	52	50 1/2	54 1/2	44 1/2	45 1/2	40	40	127	128	128	128	128	128
30	51 1/2	52	50 1/2	54 1/2	44 1/2	45 1/2	40	40	127	128	128	128	128	128
31	52 1/2	53	51 1/2	54	45 1/2	46 1/2	28 1/2	29 1/2	40	40	125	126	126	126
1	52 1/2	53	51 1/2	54	46 1/2	47 1/2	28 1/2	29 1/2	40	40	124	125	125	125
2	53	54	52 1/2	55	49	50	29 1/2	29 1/2	43	44 1/2	45	52	122 1/2	123
3	53	54	52 1/2	55	49	50	29 1/2	30	44	44	48	48	122 1/2	123
4	52 1/2	53 1/2	51 1/2	54	49 1/2	49 1/2	29 1/2	29 1/2	44	44	123 1/2	124	124	124
5	52 1/2	53 1/2	51 1/2	54	52 1/2	53 1/2	30 1/2	30 1/2	45	46	50	50	124 1/2	126 1/2
6	53 1/2	54	52 1/2	55 1/2	51 1/2	52 1/2	30 1/2	30 1/2	45	46	50	50	124 1/2	126 1/2
7	54 1/2	56 1/2	55	55	57 1/2	59 1/2	32 1/2	33	47	47	50	50	129	129 1/2
8	55 1/2	56 1/2	54 1/2	58 1/2	55 1/2	57	32 1/2	33	49 1/2	50	50	50	127	128
9	54 1/2	56 1/2	54 1/2	58 1/2	55 1/2	57 1/2	32 1/2	32 1/2	51	51	51	51	127	128 1/2
10	55	55	54 1/2	55 1/2	55 1/2	56	31 1/2	31 1/2	51	51	51	51	128	128
11	55	56	53 1/2	57 1/2	54 1/2	54 1/2	30 1/2	31 1/2	51	51	51	51	128	128 1/2
12	55	56	53 1/2	57 1/2	54 1/2	54 1/2	30 1/2	31 1/2	51	51	51	51	128	128 1/2
13	53 1/2	54	53 1/2	55 1/2	52 1/2	53 1/2	29 1/2	29 1/2	51	51	51	51	128	128
14	54	55	53	57	54 1/2	56 1/2	30	30	47 1/2	48	48	48	128 1/2	129
15	54	55	53	57	54 1/2	56 1/2	30	30	47 1/2	48	48	48	128 1/2	129

*Since August 1 flaxseed quotations are for new crop.

RECEIPTS AND SHIPMENTS AT DULUTH.

The receipts and shipments of grain and hay at Duluth, Minn., during the month of July as compared with the same period of the preceding year, were, according to Frank E. Wyman, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1894.	1893.	1894.	1893.
Wheat, bushels...	2,189,525	485,439	2,655,084	3,390,535
Corn, bushels...	2,984	.....	1,892	.....
Oats, bushels...	64,114	.....	55,049	.....
Barley, bushels...	.....	439	.....	5,181
Rye, bushels...	.....	.....	.....	439
Flaxseed, bushels...	211	165	.....	367
Flour, barrels...	554,298	548,798	*711,034	*776,997
Output, flour...	*159,770	*138,210	.....	.....

RECEIPTS AND SHIPMENTS AT BUFFALO.

The receipts and shipments of grain and hay at Buffalo, N. Y., during the month ending July 31, as compared with the same period of the preceding year, were, according to Wm. Thurston, secretary of the Merchants' Exchange, as follows:

Articles.	Receipts by lake.		Shipments by canal.	
	1894.	1893.	1894.	1893.
Wheat, bushels...	8,478,725	8,415,048	6,209,160	5,714,701
Corn, bushels...	2,056,341	4,310,297	578,426	1,014,094
Oats, bushels...	1,426,487	2,237,115	269,098	106,707
Barley, bushels...	12,926	16,840	.....	.....
Rye, bushels...	45,840	77,249	16,997	.....
Grass Seed, bags...	2,127	3,965	.....	.....
Flaxseed, bushels...	500	82,525	.....	10,757,434 lbs.
Hay, tons...	817,520	1,196,961	251	625

RECEIPTS AND SHIPMENTS AT PEORIA.

The receipts and shipments of grain and hay at Peoria, Ill., during the 4 weeks ending July 28, as compared with the same period of the preceding year, were, according to R. C. Grier, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
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VISIBLE SUPPLY OF GRAIN.

The following table shows the visible supply of grain Saturday, Aug. 11, 1894, as compiled by George F. Stone, secretary of the Chicago Board of Trade:

In Store at	Wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.
Albany	13,000	18,000	9,000		
Baltimore	840,000	145,000	91,000		
Boston	170,000	23,000	4,000		
Buffalo	1,573,000	129,000	20,000	25,000	19,000
do afloat					
Chicago*	20,325,000	1,445,000	551,000	130,000	3,000
do afloat					
Cincinnati	14,000	3,000	48,000	12,000	2,000
Detroit	1,335,000	6,000	18,000	8,000	1,000
do afloat					
Duluth	3,492,000	17,000	12,000		
do afloat					
Indianapolis	494,000	35,000	54,000	1,000	
Kansas City	736,000	17,000	61,000	3,000	
Milwaukee	861,000			3,000	
do afloat					
Minneapolis	7,089,000		11,000		2,000
Montreal	54,000		110,000	12,000	3,000
New York	11,068,000	62,000	388,000	9,000	
do afloat	113,000	18,000			
Oswego	50,000	5,000			10,000
Peoria	116,000	2,000	272,000	2,000	
Philadelphia	1,470,000	28,000	125,000		
St. Louis	5,274,000	42,000	117,000	3,000	
do afloat					
Toledo	2,923,000	45,000	90,000	13,000	
do afloat					
Toronto	56,000		32,000		47,000
On Canals	2,280,000	656,000	184,000		
On Lakes	1,502,000	471,000	648,000		
On Miss. River		2,000			
Total	62,321,000	3,164,000	2,854,000	239,000	87,000
Corresponding date, 1893	58,869,000	6,214,000	1,928,000	320,000	377,000

*Estimated from the best data available in advance of official figures.

INSPECTED RECEIPTS AT CHICAGO.

According to the report of Chief Grain Inspector George P. Bunker the grain received at Chicago during the month of July, 1894, was graded as follows:

WINTER WHEAT.

Railroad.	White.			Hard.			Red.			No. G'de.
	2	3	4	1	2	3	1	2	3	
C., B. & Q.	1	1		41	8	5	677	98	11	4
C., R. I. & P.				41	6		81	41	1	1
C. & A.	4	5		167	36		616	297	13	3
Illinois Central.				57	2		852	33	10	5
Freeport Div.						1				
Galena Div. N. W.				3						
Wis. Div. N. W.					5					
Wabash.	1			10	1		551	82	29	6
C. & E. I.	2						726	98	3	
C., M. & St. P.					9	1				
Wis. Cent.				3						
Gr. Western.				3			2	5		
A., T. & S. Fe.	1			33	14		136	51	7	9
Through & Spec.							767	89	1	
Total each grade	8	7		352	70	5	4421	722	80	28
Total W. wheat.										5693

One car No. 3 and 4 cars of No Grade Colorado wheat are not shown in the above table.

CORN.

Railroad.	Yellow.			White.			2	3	4	No. Grade.
	2	3	4	1	2	3				
C., B. & Q.	253	13	44	1	767	21			21	1
C., R. I. & P.	169	12	11	5	254	90			15	1
C. & A.	77	23	17	5	107	15			11	
Illinois Cent.	489	12	80	7	160	13			13	11
Freeport Div.	89	5	7	2	152	2			1	
Gal. Div. N. W.	403	53	10	8	461	108			13	7
Wis. Div. N. W.	2	1								
Wabash.	63	8	22	1	16	15			2	
C. & E. I.	21	15	10		11	1			2	2
C., M. & St. P.	180	8	4		221	41			8	4
Wis. Central.										
C. G. Western.	32		1		93	4			6	
A., T. & S. Fe.	33	19	14	5	62	23			5	
Through & Spec.	30		10		7	3			2	
Total each grade	1,838	169	230	34	2,311	336			99	26
Total corn.										5,043

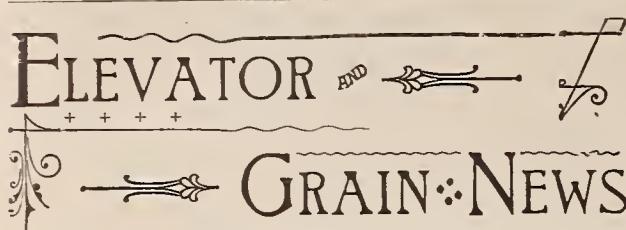
OATS.

Railroad.	White.			2	3	White Clipped.	1	2	No. G'de.
	1	2	3						
C., B. & Q.	200	191	103	38					2
C., R. I. & P.	120	101	35	10					6
C. & A.	63	105	108	65					
Illinois Central.	134	42	165	28					2
Freeport Div.	23	81	30	13					2
Galena Div. N. W.	47	198	39	71					
Wis. Div. N. W.	24	46	3	9					
Wabash.	65	5	62	8					2
C. & E. I.	11	4	51	1					
C., M. & St. P.	24	84	22	37			1	1	
Wisconsin Central.	2	1							
C. G. Western.	7	51	12	15					
A., T. & S. Fe.	32	14	47	14					5
Through & Special.	14	24	3	2					1
Total each grade.	766	947	680	311			1	21	
Total oats.									2,726

SPRING WHEAT.

Railroad.	Northern.	2	3	4	No Grade	White.			Mixed Wheat.
1	2	3							

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A farmers' elevator is being erected at Alpha, Ill. There is a project for a new elevator at Genoa, Neb. G. H. Thomas has erected an elevator at Geneva, Iowa. J. C. Evans is building a new granary at Evanston, Iowa. T. A. Potter has erected an elevator at Corwith, Iowa. M. Miller is putting up a grain house at Nassau, Iowa. An elevator is being erected at Norway Spur, Oakes, N. D. The Magill Elevator at Fargo, N. D., is about completed. Ed. Fisher's elevator at Malden, Ill., is being repaired. E. Caher is erecting a cottonseed oil mill at Meridian, Miss. The new elevator at Pine Village, Ind., is now in operation. There is a project for a new brewery at New Brunswick, N. J. Mr. Thomas has embarked in the grain business at Geneva, Ill. F. M. Black is erecting a grain elevator at Fremont, Iowa. An elevator is being erected at Rochester, Minn., by J. A. Cole. A 20,000-bushel elevator has just been erected at Athens, Mich. B. K. Warner of Henry, Ill., is erecting an elevator at Chillicothe. J. M. Hedden has engaged in the grain business at Oakstown, Ind. Drake & Mitchell are constructing an elevator at Clarence, Iowa. A new grain elevator will be built at Carp, Ontario, by F. E. Argue. B. B. Miner, grain dealer at Muncie, Ind., is adding new machinery. A new brewery will probably be erected at East Liverpool, Ohio. Wm. Bradshaw's elevator at Worthing, S. D., is about completed. Wogan Bros. will build and operate a rice mill at New Orleans, La. Work on Rohde Bros.' elevator at Armstrong, Iowa, is well under way. A farmers' elevator company has been organized at Altona, Assiniboia. L. B. Yoe has opened a new grain commission house at Kansas City, Mo. F. N. Isham's elevator at Avon, N. Y., is receiving extensive additions. F. W. Schamber has leased Rudolph Koch's elevator at Bagley, N. D. Peavey & Co. of Minneapolis are building an elevator at Carroll, Iowa. Pittsburgh capitalists intend to erect a large brewery at Bradford, Pa. Hardman & McMullen are doing a grain business at Fountain Park, Ohio. H. R. Grape is erecting a large elevator near his mill at Hamburg, Iowa. B. Hayunga has purchased A. H. Wieman's elevator at German Valley, Ill. Haynes & Kirkpatrick are building a new grain office at Bloomington, Ill. The Bavarian Brewing Company has been incorporated at Kewaunee, Wis. Oscar Merrick has purchased Baldwin & Co.'s grain elevator at Pine Village, Ind. The Jewett Milling and Elevator Company has been incorporated at Eudora, Kan. Worthington Bros., grain and coal dealers at Cumberland, Iowa, have sold out. The Henrich Brewing Company's new brewery at Washington, D. C., is in course of construction. The

brewery will have a capacity of 250,000 barrels and will cost about \$500,000.

It is reported that a 300,000 bushel corn elevator will be erected at Peoria, Ill.

Hoard & Disbrow are operating Archer & Howe's new elevator at Alcester, S. D.

Risser's oil mill at Kankakee, Ill., will buy 150,000 bushels of flaxseed this season.

P. H. Graves is building a large addition to his grain warehouse at Seneca, Ill.

R. D. Martin & Co., grain dealers at Oxbow, Assiniboia, are erecting an elevator.

Sisson & Smith are building the Metcalfe grain warehouse at Masonville, Iowa.

The oil mill at Itasca, Texas, will be enlarged and a 150-horse power engine added.

The S. Y. Hyde Elevator Company of Mapleton, Minn., will handle coal this fall.

M. P. Stein & Co.'s new brick warehouse at Stockton, Cal., is now receiving grain.

Work has begun on the construction of the new elevator at Yellow Springs, Ohio.

The new elevator at Strasburg, Ill., has been completed and is now doing business.

Finduss & McCauley have organized for carrying on a grain business at Wichita, Kan.

T. D. Downing has just put in the machinery for the new elevator at Vermillion, Ill.

G. B. Tate has made extensive repairs to Finch & Hayward's elevator at Bode, Iowa.

The Salt Lake Milling and Elevator Company at Salt Lake City, Utah, has sold out.

Joseph Martin has a starch factory in process of construction at Van Buren, Maine.

A new elevator has been built in connection with the Niles Flour Mill at Niles, Ohio.

W. M. Noble of North Liberty, Ind., has purchased an interest in the elevator at Lopaz.

The Postel Milling Company's 100,000-bushel elevator at Mascoutah, Ill., is completed.

The National Elevator Company's new elevator at Thompson, N. D., is well under way.

S. T. Lupe has discontinued the grain business at Sedalia, Mo., having sold his elevator.

E. W. Phares of Tipton, Ind., has leased the Junction elevator and is purchasing wheat.

The Thieme & Wagner Brewing Company will erect a six-story malthouse at Lafayette, Ind.

Ricke, Schelle & Co., grain dealers at Breda, Iowa, have been succeeded by Ricke & Schelle.

C. A. Davis, a new grain buyer at Arthur, Ill., says that he is already doing a good business.

Hale & Curtis are putting three Prinz & Rau Barley Cleaners in their elevator at Chicago, Ill.

Young & Raynor, dealers in flour and grain at Raton, N. M., have dissolved partnership.

Pemberton & Gillmore will build a grain office at Havana, Ill. Sid. Miller has the contract.

J. Q. Adams & Co. of Minneapolis, Minn., will erect a 10,000-bushel elevator at Kenwood, Iowa.

Sween, Sorlien & Co., grain dealers at Bode, Iowa, are adding improvements to their elevator.

The Central Elevator at Webster City, Iowa, is now completed. J. R. White had the contract.

Halgrims & Co., dealers in grain and coal at Thor, Iowa, have been succeeded by C. Halgrims.

M. J. Kilkenny, grain and hay dealer at Leadville, Colo., has assigned with liabilities at \$9,000.

The Chandler-Hays Grain Company of Superior, Wis., is establishing agencies in the Dakotas.

West & Corrall, dealers in grain, lumber and coal at Gothenburg, Neb., have dissolved partnership.

The Jones Elevator at Redwood Falls, Minn., which was burned last spring, will be rebuilt shortly.

The Marfield Elevator at Hurley, S. D., is undergoing repairs in preparation for the coming crop.

Joseph Strouse & Son of New York City will build additions to their malt house at Newark, N. J.

F. H. Peavey & Co. have leased A. Rossing's elevator at Bode, Iowa. Mr. Rossing will buy grain.

Extensive additions will be made to the machinery of the cottonseed oil mill at Weatherford, Texas.

David B. Lyman is inquiring through the courts at St. Paul, Minn., why M. J. Forbes, receiver of the

Northern Pacific Elevator Company, should not distribute to creditors \$136,000 now in his hands.

The new elevator at Ladd, Ill., which has just started up, obtains power from a gasoline engine.

The L. Rosenheimer Malt and Grain Company at West Bend, Wis., will overhaul their malthouse.

Smith & Baker have succeeded the Bunyan-King Lumber and Grain Company at Rockwall, Texas.

Alois Ziliak of Haubstadt, Ind., will soon begin the erection of a 50,000-bushel elevator at Cynthiana.

W. C. McKee has leased a half interest in the grain and coal business of Harris & Co. at Clarion, Iowa.

The Pollock Bros. Grain Company has been incorporated at Chicago with a capital stock of \$25,000.

The West Seattle (Wash.) Elevator is being overhauled and improved for the coming shipping season.

The Medford Brewing Company has been incorporated at Medford, Wis., with a capital stock of \$20,000.

Stewart & Stewart, grain dealers of Paris, Ill., report that their business has been very good this year.

The new elevator at Gardner, Ill., is now completed, and Fuller & Spiller, the operators, are handling oats.

Burglars broke into Kent's elevator at Kalamazoo, Mich., recently, and rifled the safe of a sum of money.

D. A. Evans has sold out his elevator and grain business at Paton, Iowa, and has moved to Lohrville.

Tyler & Slater, a grain firm at Kansas City, Mo., has been dissolved, Mr. Slater continuing the business.

Beed & Northey's elevator at Hampton, Iowa, which has been shut down for repairs, is again doing business.

The firm of T. Harris & Co., the Brooklyn, Iowa, grain dealers, has admitted H. C. Light to membership.

Frank Greening has embarked in the grain business at Loami, Ill. He has just put in a five-ton scale.

The Meservay Elevator Company are putting a solid stone foundation under their elevator at Meservay, Iowa.

The Alton Milling Company of Alton, Iowa, have overhauled and repaired the elevator part of their plant.

The Cable Flax Mill at Schaghticoke, N. Y., which had been shut down for a short time, is now running again.

H. A. Truskett of Caney, Kan., has purchased a Witte 5-horse power gasoline engine for his new elevator.

W. S. Hitchings is making improvements to his elevator at Peterson, Iowa. A separator will be added.

Vauniman & Son's new elevator at Virden, Ill., is now doing business, having a large amount of grain stored.

The Jewett Milling & Elevator Company has been incorporated at Eudora, Kan., with a capital stock of \$10,000.

The Magnus Beck Brewing Company of Buffalo, N. Y., are building an addition to their brewery to cost \$40,000.

The Southwestern Elevator Company, Seneca, Mo., are now doing business with their new 150,000-bushel elevator.

The Bavaria Brewing Company has been organized at San Francisco, Cal., with a capital stock of \$150,000.

Charpie Bros. & Co. is the style of a new firm at New Paris, Ind., which has embarked in the grain business.

The elevator to be erected by the Farmers' Elevator Company at Oneida, Ill., is now in process of construction.

A company has been formed at Lawrence, Mass., with a capital of \$50,000, to build a large brewery in that city.

The Northwestern Elevator Company's elevator at Eleva, Wis., is taking in grain again. Henry Olson is in charge.

D. D. Harris of Allegan, Mich., has disposed of his interest in the elevator to W. M. Briggs for a stock of dry goods.

Rapp's elevator at Oakes, N. D., will be removed to a location near the new mill now being constructed at that place.

Essmuller & Barry have furnished the machinery for the new elevator of the Huber Milling Company at Seneca, Mo.

Theodore Weiland, assignee of Frank Nicolin of Shakopee, Minn., offered for sale, July 23, the grain warehouse at Merriam Junction, the grain elevator at New Prague, and one-half interest in the Corsan ele-

vator at New Prague, Minn. Jas. Quirk & Co. of Waterville, Minn., purchased the elevator at New Prague.

The Winona and Dakota Grain Company are repairing their elevator at Balaton, Minn., and adding improvements.

Black Bros., Beatrice, Neb., millers, have leased the Scott Elevator, thereby largely increasing their storage capacity.

Samuel Clark, for the past eight years a successful grain buyer at Hollyrood, Kan., is doing a good business this year.

The Northwestern Elevator Company's new elevator at Hope, N. D., is now completed and in charge of J. A. Klovstad.

C. S. Jennings, elevator builder of Chicago, is looking after the equipment of the new elevator at Webster City, Iowa.

Joy, Colgrove & Joy, grain, lumber and coal dealers at Odell, Neb., have been succeeded by the firm of Joy & Colgrove.

Frank Howe has purchased the interest of W. G. Beed in the grain company of Beed, Northey & Co., Hampton, Iowa.

A new grain firm at Providence, R. I., is erecting a large elevator at East Providence. Benj. F. Smith has the contract.

A company, of which E. V. Denton is a member, has been organized to erect a brewery, to cost \$40,000, at Raleigh, N. C.

Frank Churchill has purchased the grain elevator, etc., at Weston, Ill., belonging to the estate of the late E. Blaisdell.

Proctor & De Long will erect an elevator at Proctor, Ill. Mort Roberts has the contract and will at once begin work.

The new elevator at Osgood, Iowa, is now completed and about ready for business. P. F. Littleton will have charge.

Edward & Adams are a progressive grain firm at Wabash, Ind. One day recently they sold 25 carloads, to be shipped East.

Benj. Bird, formerly in the grain and stock business at McDonald, Kan., has disposed of his business and gone to Oklahoma.

J. Peacock & Son, Rockford, Ill., intend to erect new brewery buildings to replace those destroyed by fire some time ago.

The Rathbun-Sawyer Company, millers and grain dealers at Oneida, N. Y., are considering the erection of a grain elevator.

T. L. Smith is in the grain business at Fountaintown, Ind., and is making an effort to buy all the grain in his section.

Oklahoma and Kansas millers are said to be deluged with orders for corn chop and feed and say they cannot get enough corn.

Marshall & Hammel are building an addition to their elevator at Appleton, Wis., which will about double the capacity.

The C. Birkhofer Brewing Company of Minneapolis, Minn., are building a new brewery and other buildings to cost \$100,000.

E. Osborn is contemplating the erection of an elevator at Seville, Ill., "for the benefit of farmers in that part of the country."

Marsan & Brosseau, the Toronto, Ontario, hay firm which assigned recently, have liabilities of between \$150,000 and \$200,000.

Karl C. Katz, of the firm of Reichard, Weaver & Katz of Wilkesbarre, Pa., and others contemplate the erection of a brewery.

West, Andruss & Co. of Chicago, Ill., are preparing to do extensive repairing to their grain elevator at West Brooklyn, Ill.

H. H. Sindt & Co., owners of the elevator at Durant, Iowa, are building a new 20,000-bushel elevator at Round Lake, Minn.

William Gilmore of Edison, Wash., is carrying on a general store business besides shipping a large amount of grain and hay.

Cartwright's new elevator, which is being erected at Davison, Mich., will be 101 feet high and have a capacity of 68,000 bushels.

Paul Smith of Lincoln, Ill., has bought the grain business and elevator of A. Esten at Lawndale, and intends to push the business.

Frank Barnes of Whitten, Iowa, has sold his elevator and will retire from the grain trade and carry on a lumber and coal business.

The Northwestern Elevator Company has been incorporated at Oswego, N. Y., with a capital stock of \$60,000, for the purpose of elevating and storing grain

and storing merchandise. The directors are Theodore Irwin, G. B. Sloan, Robert Downey and D. M. Irwin of Oswego.

The Northwestern elevator at Pembina, N. D., is being made ready for the coming crop. C. Bauer will buy grain there this season.

Bartlett, Kuhn & Co.'s elevator at Arthur, Ill., is being enlarged by the addition of an oat bin, 30x60 feet in size, with several dumps.

The Mohawk Milling and Malting Company, Herkimer, N. Y., are about to build a mill and storage building 168x100 feet in size.

The Franklin Starch Factory at Franklin, Ind., which has been closed down for some time, will resume operations September 1.

John Hass, grain buyer at Traer, Iowa, will make a specialty of barley again this year. He handled over 100,000 bushels last year.

Mr. Thurston McGill, the grain dealer at Watseka, Ill., whose elevator at Milford burned recently, is making preparation to rebuild.

A brewing company by the name of Kalmbach & Geisel has been incorporated at Springfield, Mass., with a capital stock of \$300,000.

Burglars broke into C. R. Ford's grain warehouse at Elkton, Md., recently and blowing open the safe stole papers to the value of \$600.

W. L. Matthews, the Marlette, Ill., miller, is building a 30,000-bushel elevator in place of the one burned. It will have the latest machinery.

The Waukesha Grain and Produce Company of Waukesha, Wis., has changed its name to the Hoag & Rankin Feed and Grain Company.

C. A. Means, one of the principal business men of London, Ind., is buying grain in addition to his general store and lumber business.

Buckley, Prusley & Co., grain dealers of Peoria, Ill., have opened up a branch house at Colchester and placed H. H. Claybaugh in charge.

The Great Western Brewing Company will erect a brewing plant at Liverpool Heights, near Hobart, Ind., at an estimated cost of \$120,000.

T. B. Bailey has leased an elevator at Beloit, Wis., for a term of three years. He has operated this elevator since its erection ten years ago.

Emden, Ill., is proud of the fact that G. W. Miller, its grain merchant, handled half a million bushels of grain during the year ending June 30.

George McGee & Co. of Dubuque, Iowa, dealers in machinery and grain, are contemplating making improvements to their grain warehouses.

Strong & Miller's elevator at Hastings, S. D., is being repaired. The engine ran away, and the governor belt breaking, some damage was done.

A meeting of property owners in North Seattle, Ore., was held recently to consider means toward erecting a new flour mill and elevator.

Hagener Bros. of Beardstown, Ill., who have been operating a flour mill in connection with their grain and lumber trade, have sold their mill.

Bartlett, Kuhn & Co., grain dealers at Arthur, Ill., are building an oat bin 30x60 feet in size, with several dumps, as an addition to their elevator.

A new grain company has been organized at Danforth, Ill., composed of W. H. Rumley and A. S. Chapman, to succeed Wykle & Rumley.

Witherspoon & Barr, grain dealers at Princeton, Ind., are contemplating an addition to their elevator which will increase its capacity one-half.

A 15,000-bushel elevator will be built at St. Mary's, Mo., for the St. Mary's Milling Company, to be run in connection with their other large elevator.

The grain business at Finlay, Ill., is reported to be on the boom. Combs & Truitt, the new grain firm at that place, have put in a new pair of scales.

Wilson & Jacobson of Gilman, Iowa, have purchased the elevators, offices, cribs, etc., of Gifford & Manley, old grain dealers at Grinnell, Iowa.

G. F. Sutherland of Gagetown, Mich., writes us that P. Toohey & Sons, millers, will erect an elevator this fall to be run in conjunction with their mill.

A large elevator is being erected at Hope, N. D., and will be ready for the fall crop. With this acquisition the town has four elevators and a mill.

The firm of Conover & Butterworth of Pleasantville, N. J., has been dissolved, Mr. Butterworth carrying on the business in grain, flour and coal.

G. T. McComb of Lockport, N. Y., will erect a large grain and fruit warehouse at Gosport. The building will be 89x100 feet in size and two stories high.

John Wild's new grain house at Milton, N. D., just completed, is a model granary. It is 16x60 feet in size, and has stone foundation. It is built on the side of a hill and so arranged that grain may be dumped

into hopper bottomed bins at the top and let out through spouts below. One end is partitioned off and contains a feed mill run by an aermotor.

Elevator men at Wessington, S. D., are expecting a heavy business for this crop, and are overhauling their elevators and otherwise putting things in shape.

The Milwaukee Malt and Grain Company, Milwaukee, Wis., has ordered a large sized barley separator from The Prinz & Rau Manufacturing Company.

The Marfield Elevator Company now has charge of A. W. Fallgatter & Co.'s elevator at Parker, S. D. J. D. Kitt, formerly of DeSmet, has taken charge.

J. B. Seymour, who recently lost his elevator at Kenton, Ohio, by fire, has decided to rebuild at once. He has established temporary quarters at the hotel.

Treishel & LeSage, grain, coal and lumber dealers at Martinton, Ill., have been succeeded by LeSage & Lottinville, Mr. Treishel having sold out to the latter.

Ed. Brandom's elevator at Wakenda, Mo., is now completed and running at full blast. Mr. Brandom says the Wabash Railroad cannot furnish cars enough.

The Wisconsin Malt and Grain Company of Appleton, Wis., which has been shut down for some time, will probably be doing business again by September 1.

The Central Elevator Company of Humboldt, Iowa, has begun the erection of a new elevator on the grounds occupied by the one burned some time ago.

J. C. Hudson & Son of Juliaetta, Idaho, write us that they are contemplating the construction of an elevator to be operated in connection with their mill.

L. H. Hyde has rented an elevator at Joliet, Ill., and has put in a mill to grind feed, rye and Graham. He will also put in a blender and will wholesale flour.

The Globe Milling Company of Perham, Minn., intend to erect a large warehouse in connection with their mill to be used for the storage of bran, shorts, etc.

The farmers at Altona, Wis., have applied for letters of incorporation for the purpose of running a farmers' elevator. They have a capital stock of \$5,000.

Henning, Thode & Co., brewers, San Francisco, Cal., have commenced the erection of a new brewery, to be fitted with all modern improvements, in that city.

James S. Rowe, proprietor of the grain elevator at Wilton, Iowa, has given the elevator a thorough cleaning and improved its appearance by a new coat of paint.

Sherrett & Christie is the name of a new firm about to embark in the grain business at Wiota, Cass county, Iowa. The new company will rent or build an elevator.

The Tacoma Warehouse and Elevator Company at Tacoma, Wash., has contracted with The Edw. P. Allis Company for the complete equipment of its elevator.

A stock company will erect a brewery at Hoosick Falls, N. Y. It will be 40x100 feet, four stories high. Michael Fitzgerald, Troy, N. Y., is at the head of the scheme.

The Middle Division Elevator Company has been incorporated at Chicago with a capital stock of \$5,000. Incorporators, M. S. Bacon, E. R. Bacon and Otto E. Richelt.

The new elevator at Mosca, Colo., is about completed. It will have a capacity of 100,000 bushels, and will be fitted throughout with improved machinery.

Irwin J. Griesemer of Monocacy Station, Pa., has the contract for putting in a complete elevator outfit for A. H. Dunkle, to be run in connection with his distillery.

The 750,000-bushel elevator belonging to the Osborne & McMillan Elevator Company at Minneapolis, Minn., is now in operation. W. H. Wenzel is superintendent.

A 15,000-bushel elevator will be built at Perryville, Mo., which will be used as a feeder for the 32,000-bushel elevator of the St. Mary's Milling Company at St. Mary's.

The Coffeyville Milling Co.'s new elevators at Coffeyville, Kan., have been fitted throughout with improved machinery by Esmuller & Barry, the mill furnishers.

Will Calvert, who had been in the employ of W. W. Cargill & Co., grain dealers at La Crosse, Wis., disappeared some time ago. He was short in his accounts about \$400.

A 10,000-bushel elevator will be erected at Buck Grove, Iowa, by J. Q. Adams & Co. of Minneapolis, Minn. It will be fitted throughout with improved machinery.

The stockholders of the Chicago Railway Terminal Elevator Company held a meeting at New York, August 1, and ratified the amendments proposed by the directors to the certificate of incorporation of the company. The company is an American corporation,

the successors of an English company known as the City of Chicago Grain Elevators, Limited. The new company has taken out a charter in the state of New York.

The Keiser & Holmes Elevator Company has been incorporated at Gibson, Ill., with a capital stock of \$12,000. Incorporators, C. J. Keiser, A. J. Keiser and O. H. Holmes.

R. Giblett & Sons, the oldest commission firm of Seattle, Wash., have removed to more commodious quarters, and will, as heretofore, handle grain, feed, hay, flour, etc.

Perry and W. D. Welch have purchased Wilson's elevator and lumber yard at Marathon, Iowa, and will carry on a grain and lumber business under the name of Welch Bros.

The new Great Western Elevator at Redwood Falls, Minn., is being rapidly completed. It will be 30x32 feet in size, 60 feet high, and will have a capacity of 25,000 bushels.

The farmers who were intending to erect an elevator at Sioux City, Iowa, have determined to wait until more business is assured than the present indications would warrant.

D. W. Clary, a grain dealer at Lucerne, Ind., stored large quantities of wheat in the anticipation of a rise in the market, but the market went down and Mr. Clary has failed.

W. W. Smith, who engaged in the grain business at Hollyrood, Kan., in 1888, and has ever since carried on an active trade, has held the position of postmaster since July, 1893.

Farmers in the vicinity of Cavalier, N. D., have organized a grain growers' association and intend to build and operate a grain warehouse having a capacity of 20,000 bushels.

Dungan & Son are in the grain business at Brimfield, Ill. They have lately installed a new engine in their elevator, and their house is now said to be a model of convenience.

John A. Ketting, proprietor of the flouring mill at Syracuse, Ind., has obtained possession of the B. & O. elevator and will carry on a grain business in connection with his mill.

The Medford Brewing Company has been incorporated at Medford, Wis., with a capital stock of \$20,000. Incorporators, Rose Kuehn, Carl Kuehn, Clinton Paxton and Joseph Forst.

L. D. Lane, an enterprising grain buyer at Potomac, Ill., has bought out the firm of Goodwine & Lanham, grain dealers at Jamesburg, and will carry on the business at both places.

The Northern Grain Company of Ashland, Wis., purchased the damaged wheat which was in the Winona Milling Company's elevator at Mankato, which was burned recently.

The Lamberton Elevator Company has begun the erection of an elevator at Rollingstone, Minn. The company is not after moss and will gather a good business in its new location.

Diver & Shide, a new grain firm at Middletown, Ohio, have purchased J. B. Hartley's elevator. They are young and enterprising business men and will build up a successful business.

Fred P. Rush & Co., grain and coal dealers at Champaign, Ill., are increasing their storage capacity to about 35,000 bushels. A large new dump will be put in and extensive repairs made.

Pollock Bros. are building elevators at Jamesburg and Collison, Ill., and at the Big Four crossing on the Rossing-Sidell branch. The headquarters for the company are at present at Rossville.

The Witte Iron Works of Kansas City, Mo., recently sold to Mr. W. H. Youtz of Tipton, Mo., a 10-horse power improved Witte Gasoline Engine to run his elevator and feed mill. It is reported that she runs like a top.

George Crawley was recently found by a policeman in a grain car at Peoria, Ill., and could not explain how he got there. He was arrested. He will not make shortages in country shipments for some time to come.

The Northwestern Malting and Construction Company have purchased three automatic grain scales of the Chicago Automatic Scale Company, for their elevators at Savanna, Ill., and three for their elevators at Cedar Rapids, Iowa.

The new Northwestern Elevator at Rothsay, Minn., is now completed and doing business. The elevator has the latest improvements for handling and weighing grain, and is said to be one of the "nicest and handiest elevators in the state."

The Hicks Gas Engine Company write us that they "have orders to be shipped within the next 10 days one 50-power gas engine to Hans Pederson, Barnsville, Minn., to run his new flour mill that he is now putting up; two 25-horse power gas engines to the city

officials of Springfield, Minn., to run an electric light plant for the city and water works, and one 35-horse power to E. E. Halsted, Ponce, Neb., to run a new flour mill they are now erecting."

L. B. Weisenburgh, Frankfort, Ky., is building a 30,000-bushel elevator to be run in connection with his 100-barrel mill, now in course of construction at that place. He desires prices on machinery.

The grain firm of Boulware, Paul & Co. of Foos-laund, Ill., has been succeeded by Boulware & Co. Mr. Paul disposing of his interests in the business to Mr. Snyder, an old grain man of Stanford, Ill.

Charles Johnson and J. W. Fulgham of Nashville, Tenn., and Mr. Highman of Mount Vernon have organized a company with a capital stock of \$9,000. to buy and sell grain at Mount Vernon, Tenn.

H. E. Richardson, representing The Prinz & Rau Manufacturing Company, reports the sale of one of his company's large combined barley and cockle separators for Hamm's brewery at St. Paul, Minn.

Davidson & Smith, a Kansas City grain firm, have leased the 100,000-bushel elevator just erected at Winfield, Kan. Ashby Woodson of Kansas City will have charge of the company's business at that point.

The firm of Wykle & Rumley, which has conducted a grain business at Danforth, Ill., for about a year, has been dissolved, and the business will hereafter be conducted by C. H. Rumley and A. S. Chapman.

The General Fire Extinguisher Company has equipped the new elevator of the Great Western Elevator Company at Minneapolis, Minn., with Grinnell Automatic Fire Extinguishers on the dry system.

A four-story and basement malthouse and kiln, 122x110 feet, will be built for the Standard Brewing Company at Chicago. It will be constructed of brick, have all the necessary appliances and cost \$40,000.

The Northwestern Elevator Company at Castlewood, S. D., has been ordered by the Board of County Commissioners to pay a tax on a quantity of grain stored in its elevators, but has appealed to the courts.

Baker & Swiney, elevator men and grain merchants at Hollyrood, Kan., have a well-established business. They located at that town about five years ago and have obtained a deserved reputation for business integrity.

J. E. Murphy and Louis H. Frankenheimer compose the grain commission firm of Murphy & Frankenheimer at Stockton, Cal. They deal in grain bags and twine also, and represent a number of insurance companies.

E. A. Abbott & Son are just completing their elevator at Ute, Iowa. It is 24x28 feet in size, with a capacity of 8,000 bushels. It has an improved dump with a capacity of 2,000 bushels. Mr. McGraw is their buyer.

Business men of Marshfield, Wis., are trying to induce elevator men to erect warehouses and elevators at that place. They say that if a market were opened there from 500,000 to 1,000,000 bushels of grain will be marketed.

The Weare Commission Company, the well-known grain commission merchants of Chicago, have opened a branch office at Minneapolis, Minn. F. R. Pettit, formerly in the milling business at that point, will have charge.

J. A. Campbell & Son have completed the Forest Home Elevator at the McCandless Siding, near Nemaha City, Neb., for the farmers of that section. The farmers intend to get higher prices for their grain, they say.

Owing to poor crops the elevators at De Smet, S. D., belonging to the Marfield Company, the Winona Mill Company, and Archer & Howe will not be opened this season. The Van Dusen, Morrison and Robinson elevators will do business.

Cargill & Hyde of Winona, Minn., who operate a line of elevators along the Southern Minnesota Railway, have made the announcement that they will close down their houses in that section, owing to the poor prospects for crops.

At a meeting of the directors of the Battle Lake Wheat Association, at Battle Lake, Minn., bids were received for the leasing of the company's elevator. Martin Anderson, who has run the house for three seasons, was given the lease.

That long longed for elevator at Mobile, Ala., is not yet a thing of the past instead of the future. Subscriptions are still accepted. A Mobile lady recently called on the secretary of the Commercial Club to subscribe \$10 to the fund, and a gentleman gave \$100, unsolicited.

The Hicks Gas Engine Company of Cleveland, Ohio, write under date of August 11: "We shipped this week the Hicks Compound Cylinder Gas and Gasoline Engine to the following parties: One 20-horse power to James Bell, Minto, N. D., to be used in his elevator; one 20-horse power to J. F. Cartwright, Davison, Mich., to be used in his new elevator and feed mill;

one 20-horse power to C. A. Hammond and Wm. Koch, Stockton, Ill., to run their elevator; one 15-horse power to Thomas Smith Printing Company, Detroit, Mich., to run their printing house."

Chicago capitalists are contemplating the erection of steel terminal elevators at Superior, Wis. If the plans are carried out, the new elevators will offer serious competition to the old concerns.

At the last meeting of the stockholders of the Farmers' Elevator Company at Fergus Falls, Minn., H. P. Berg was elected manager and wheat buyer. An examination of the books showed that their business was in a prosperous condition.

Robert Harrington, a well-known dealer in grain, lumber and coal at Marseilles, Ill., has assigned to John B. Waite. The creditors are mainly farmers of whom he has purchased grain, he being indebted to them to the extent of about \$9,000.

Maloney Bros. are erecting an elevator to be run in connection with their milling plant at Canton, N. Y. It will be 45x50 feet in size, 45 feet high and have a handling capacity of 5,000 bushels per hour. It will be supplied with improved machinery.

At a recent meeting of the directors of the Farmers' Warehouse Association at Mapleton, Minn., W. H. Davis was re-elected secretary and W. D. Sprague was engaged as grain buyer. Work has just commenced on the company's new elevator.

The bucket shop firm of G. M. Irwin & Co. of Pittsburgh and Chicago have "failed" again. Different speculators who have been investing in wheat through this firm will lose about \$20,000. It is thought that in Eastern Pennsylvania \$100,000 has been lost.

Trumbull, Streat & Allen, seed men at Kansas City, Mo., recently put in a 10 actual horse power Witte Improved Gasoline Engine to furnish power for cleaning seed and making bale ties. The engine stands in the basement and operates automatically.

At the annual meeting of the Farmers' Elevator Company at Cokato, Minn., a dividend of 19 per cent. was declared. A board of directors and the following officers were elected: S. J. Swanson, president; C. R. Peterson, secretary, and S. J. Swanson, treasurer.

Wideawake dealers wishing to extend their trade should subscribe for the new volume of the *Hay Trade Journal*, just commenced. It is published weekly, and it and the *AMERICAN ELEVATOR AND GRAIN TRADE* will be sent to one address for \$2 per year.

Another enormous new elevator is building in Buffalo harbor. Hard though the times are, the elevator business must be good. Million dollar elevators are not put up in the midst of commercial depression unless there is business for them.—*Buffalo (N. Y.) Times*.

Walter Welsh, Stony Point, Mich., reputed to be the wealthiest grain dealer in Essex county, made an assignment recently for the benefit of his creditors. He was thought to be worth \$50,000 in real estate and personal property, but his liabilities are as yet unknown.

Regarding the exemption of some Superior (Wis.) elevators from taxation, a local paper says that when the elevators discriminate against their home Board of Trade the taxes are the only benefit the town gets from them, and said taxes should not be lowered or removed.

A company has been organized at Tlacotalpan, state of Vera Cruz, Mexico, for the manufacture of cottonseed oil. The capital stock is \$50,000. Machinery was obtained in the United States, and the company expects to have the mill running by the close of the year.

The Chandler-Hays Grain Company has been incorporated at Superior, Wis., with a capital stock of \$25,000, to do a general grain shipping and receiving business. Incorporators: P. M. Chandler, formerly of Linton & Chandler; J. W. Hays of Aberdeen, S. D., and G. C. Cooper of Superior.

The Clover Leaf's new elevator at Toledo, Ohio, is now doing business. It has a capacity of 200,000 bushels, and is the only elevator in existence which is built entirely of iron. It has ten large steel storage tanks operated on the pneumatic system. The whole structure is absolutely fireproof.

W. H. Stokes, the Watertown, S. D., miller, has purchased the Finch & Hayward grain houses at Clear Lake and Palmer, S. D., and will also buy grain at Toronto. Mr. Stokes bought W. H. Penberthy's coal and feed business at Clear Lake, and Mr. Penberthy will have charge of the house at that point.

A company calling itself Booge, Frazee & Co. at Chicago, Ill., and the Hawkeye Commission Company at Omaha, Neb., has failed, because of the late bulge in corn. The liabilities will be hard to determine: the assets will probably be nil. Customers of both houses are out about \$200,000, more or less. C. I. M. Neuman speculated through the firm at Omaha and has brought suit to recover \$7,000, the results of his

investments. When will country customers learn that bucket shops succumb to every rise in prices, and that it pays to invest through reliable houses only?

The Hayward Elevator Company of Kansas City, Kan., has brought suit against the Niagara Insurance Company to recover the sum of \$300, the amount of insurance carried on its elevator at Rosedale which was destroyed by fire last April. This company has filed seven suits against insurance companies within a week.

The Chicago O'Neill Grain Elevator Company of Chicago has purchased the elevators, about 43 in number, formerly belonging to the E. M. Dickey Company of Dubuque, Iowa, located near Dubuque. The Dickey Company has operated these elevators about eight years, but they will now retire from the grain business.

The Security Grain Company of Minneapolis and Duluth, Minn., has instituted suit against the Eastern Minnesota Railway Company to recover \$542.15, the value of a shipment of oats from Hillsboro, N. D., to Duluth. It is alleged that the railroad company kept the oats and, although the freight was paid, refused to give them up.

A 20,000-bushel elevator is being erected at Westport, Minn. It will be equipped with the latest improved machinery, and power will be supplied by a gasoline engine. Mr. Beaudreau, who is building the elevator, had formerly been a track buyer at Westport, but the railroad company objected to his drive-way on the track.

Irwin & Green, a firm of brokers at Chicago, Ill., have begun suit against H. P. Lloyd, trustee of E. L. Harper, late president of the Fidelity National Bank, Cincinnati, to recover the sum of \$594,331, their share of dividends thereon. The claim is based on margins as brokers for Harper in a wheat deal at Chicago several years ago.

It is reported that as a result of the cut in elevator storage rates at West Superior, Wis., the Northern Pacific will erect at that point a system of elevators to handle 3,000,000 or 4,000,000 bushels of wheat. As soon as possible application will be made to Judge Jenkins to carry out the new enterprise in time to handle the new crop of wheat.

The Duluth Elevator Company of West Superior, Wis., which has one of the largest systems of grain elevators in the world, has reorganized under the laws of Wisconsin by the name of the Globe Elevator Company. The company's three houses at West Superior have a capacity of 5,000,000 bushels. Most of the stock of the company is controlled by F. H. Peavy.

Members of the Farmers' Alliance met at Minneapolis last month and took steps toward organizing a corporation to be known as the Farmers' Grain and Produce Company, having a capital stock of \$25,000. They will lease or erect an elevator at Duluth. Ignatius Donnelly said that the elevators of Minneapolis had made a profit last year of 47 per cent. on their capital.

The State Elevator Company of Minneapolis, Minn., has brought suit against the city to recover \$5,000 damages. Plaintiff claims that it was put to considerable expense in excavating about the supports of its elevator when the Great Northern tracks were lowered, but the city disclaims responsibility on the ground that the building is not on a public thoroughfare but in the middle of a block.

Talpey Bros., grain commission men of Kansas City, Mo., have decided to erect a new building on the site of the Rock Island Elevator which they formerly operated and which was destroyed by fire recently. It will be equipped with all the latest improved machinery, and a large boiler will be added to the engine room. It will be the second largest elevator in Kansas City, having a capacity of 500,000 bushels.

P. H. Graves, a grain dealer at Seneca, Ill., has made an assignment, with liabilities at about \$30,000. His failure was caused by the recent rise in corn. He stored grain free of charge and paid farmers the market price on demand. Having long since shipped large quantities of corn, he was short on corn and money when the farmers called for cash on the advanced price. He says he will pay in full.

J. W. Helm, an old citizen of Danville, Ill., in the employ of the Globe Hominy and Milling Company, has been arrested on a charge of forgery and that he had fraudulently taken a sum of about \$3,000. Helm is said to have cashed checks collected in Chicago for his firm, and suit is brought to recover from Chicago brokers, as it is thought that Helm may have used them as margins for deals on the Board of Trade.

The Prinz & Rau Manufacturing Company reports the following recent sales: One No. 2 Prinz Improved Barley Grader and Cockle Separator for the Delmer-Wuerpel Mill Building Company of St. Louis; one No. 2 cockle machine for the Great Western Manufacturing Company, Leavenworth, Kan.; one No. 1 cockle machine for The Case Manufacturing Company of Columbus, Ohio; one No. 2 Iron Prince for the Minneapolis Flour Manufacturing Company; one largest size barley grader and cockle separator for the

Hales & Curtiss Malting Company of Chicago; one No. 1 Prinz Cockle Machine for The Nordyke & Marmon Company of Indianapolis; one No. 1½ cockle machine for Aug. Wolf & Co., Chambersburg, Pa.; two large size barley graders and cockle separators for the Pabst Brewing Company of Milwaukee; one No. 5 Iron Prince Smutter, 300 bushels' capacity per hour, for the Phoenix Mill of Milwaukee.

Stitzel & Burt is the style of a new commission company recently organized at Des Moines, Iowa, for the transaction of a general commission business in grain, provisions and stocks. It is the intention of the company to execute all transactions according to the rules of the New York Stock Exchange and the Chicago Board of Trade, and on a most conservative basis. The firm is composed of Geo. C. Stitzel and Chas. B. Burt.

The grain business of Minneapolis keeps up to a normal activity and a healthy growth, notwithstanding a general depression in almost all other lines of business. The increase in the storage capacity of the city during the past year has been 4,000,000 bushels, a greater increase than for any year since the grain business of that city has had a history. The new elevators of Peavey & Co., Sowle & Sons and McMillan & Osborne are responsible for this.

LATEST DECISIONS.

Accepting Bill of Lading After Shipment Does Not Bind Shipper.

Where goods are shipped under a verbal agreement, before any written contract or bill of lading has been tendered to the shipper, the Supreme Court of Illinois holds (M. D. T. Co. vs. Furthman, 36 N. E. Rep. 615), the subsequent acceptance of a bill of lading, without assenting to its conditions, will not bind the shipper.—*Drucker's Journal*.

Railways Can Demand Prepayment of or Credit Whom They Choose.

A railway company may, undoubtedly, the United States Circuit Court holds, in Little Rock & M. R. Co. vs. St. L., I. M. & S. Ry. Co. (59 Fed. Rep. 407), waive the right of prepayment, and retain a lien upon the goods until payment is made, and in case of delivery before payment may hold the consignee responsible, or it may refuse to do either and demand prepayment. The exercise of these rights, or the waiver of some of them, at different times, cannot be construed to be a denial of "equal facilities," or a "discrimination."

Title to Goods Purchased from a Fraudulent Purchaser.

Where a purchaser buys goods with intent to defraud the vendor of their price, and sells them to a third party, the Supreme Court of Kansas holds in the case of Kilpatrick-Koch D. G. Co. vs. Kahn (36 Pac. Rep. 327) it is not necessary that the last-named purchaser should have had notice of the original fraudulent purpose in order to defeat his title, but in order to protect such subsequent vendee in his purchase the burden rests on him to show that his purchase was free from fraud, and for a valuable consideration.

Rights of Mortgagee in Foreclosure.

Where a mortgagor had surreptitiously hidden, secreted or sold some of the property mortgaged, so that the mortgagee cannot find it, or make it available at the time of the foreclosure by sale of the property found, the mortgagee cannot assert his lien upon that property when found, either in the hands of the mortgagor or another person. If found in the hands of a third person he can demand possession of it, and if not surrendered he can recover from the person who has the possession the value thereof to the extent of his interest.—*First Nat. Bank of De Smet vs. Northwestern Elevator Co. (Supreme Court of South Dakota)*, 57 N. W. Rep. 77.

Subrogated Rights—Covenant in Lease—Statute.

Where a ware room was built on leased ground belonging to a railroad company, and the warehouseman covenanted in the lease that, for any damage to house or contents by fire caused by the railroad company, the company should not be liable unless such fire was due to its negligence.

Held, That, though Gen. St. S. C. Sec. 1511, makes railroad companies liable for fires set by them, without regard to the question of negligence, this covenant is binding on the insurer, who is subrogated to the rights of the warehouseman.

2. *Railroad Companies—Fires—Negligence—Evidence.* The fact that the fire occurred immediately after the passage of a locomotive to and fro alongside the warehouse is not sufficient to show negligence on the part of the railway company, where there is evidence that the company used all reasonable precaution to prevent fires, and that its locomotive was equipped with all

proper appliances generally found effective to prevent the escape of sparks.—*Savannah F. & M. Ins. Co. vs. Pelzer Mfg. Co.*; U. S. C. C. D. S. C., April 17, 1894.

For the purposes of this case it was assumed that one cannot contract for a release of his own negligence or that of his agents or servants, yet it must be noted that this rule is not universal. Even a common carrier can insure itself against the negligence of itself, its servants and agents. In proof we cite *Phoenix Ins. Co. vs. Erie & West Transportation Co.*, 117 U. S. 320.

Liability of Principal for Breach of Unauthorized Contract.

Where a general rule of a railway company for demurrage chargeable to all its patrons on goods not removed in a specified time after their arrival, and also provides for the storage in warehouses of goods not removed within a certain time, the storage and drayage to be at the expense of the consignee. A contract with the company's station agent and soliciting agent, that in consideration of a large shipment of freight over its line, no demurrage, drayage or storage would be charged against him, a breach of the contract would give him no right of action against the company for the acts of its subordinate agents.—*Harris vs. Central R. R. & Banking Co. of Georgia (Supreme Court of Georgia)*, 18 S. E. Rep. 159.

Business—Taxation—Occupation.

The Supreme Court of Georgia held, in the recent case of *Carson vs. City Council of Forsyth*, that an act authorizing the municipal authorities of a city "to make such assessments and levy such taxes on the inhabitants of said city who transact or offer to transact business therein, and on such persons as live without the limits of said city, but who transact or attempt to transact business within the limits of the same, as said mayor and aldermen may deem expedient for the safety, benefit, convenience and advantage of said city," was sufficiently comprehensive to authorize the imposition of a special tax on all business occupations carried on in the city; that one class of such occupation might be taxed without taxing other classes; that the act of 1875 authorized the issuing of executions for unpaid taxes, whether ad valorem or specific, due the city of Forsyth, and the collection of the same by levy and sale, and the amending act of 1879 expressly provided that the taxes on occupations thereby authorized might be collected in the manner and by the means pointed out in the act of 1875, and that where the same person in that city carried on two separate and distinct occupations liable to taxation in different amounts, an execution might issue for the gross sum, including the amounts of all the special taxes for which such person was liable and in default. Under this ruling it would be a very easy matter to drive the irregular dealers out of any market.



Tickets of membership to the New York Produce Exchange are held at \$475.

At a recent meeting of the Corn and Flour Exchange of Baltimore several new committees were appointed.

Upon the dissolution of the San Francisco Produce Exchange another organization was formed under the same name.

The Baltimore Corn and Flour Exchange has passed resolutions protesting against the adoption by the Senate of the Hatch Anti-Option Bill, which has passed the House of Representatives.

The New York Hay Exchange has adopted rules requiring the payment of all bills within ten days after presentation. This will serve as protection against loss and tend to the maintenance of more stable and uniform prices.

Take advantage of our clubbing rates and subscribe for the *Hay Trade Journal* and the *AMERICAN ELEVATOR AND GRAIN TRADE*. The *Hay Trade Journal* is published weekly and contains full reports of all hay markets. Both papers will be sent to one address for \$2 a year.

The Kansas City Commercial Exchange has decreed that commissions on all consignments of wheat, rye, barley and flax be 1 cent a bushel, on corn and oats ½ cent a bushel, millstuff \$5 a car; for buying or selling grain on order not less than ½ cent a bushel, for future delivery ¼ cent per bushel on less than 5,000 bushels, and ½ cent for over 5,000 bushels.

Country shippers should not consign goods to strangers, who may send out private circulars bidding above the market for business. When schemers of this class get the grain, the shipper gets left.

WATERWAYS

The Baltimore Corn and Flour Exchange at a recent meeting adopted resolutions urging the United States to aid in building and operating the Nicaragua Canal in every possible way.

The formal opening of the Canadian Soo Canal is billed for September 15. The machinery to connect the turbines in the power house with the electric plant has yet to be installed.

At a recent meeting of the directors of the Chamber of Commerce of Buffalo an adverse report was made on the question of the proposed canal to connect Lake Erie with the Ohio River.

It is reported that work on the Panama Canal will soon be renewed. This scheme has already ruined thousands, and wily Frenchmen will be given another chance. Some engineers state that the project is not so practicable as the promoters suppose.

A convention will be held in Toronto September 17 to urge the deepening of the canals and the improvement of the St. Lawrence River route. It is proposed to ask the Western states to contribute to this scheme, and invitations to send delegates will be sent out.

It is said that the props under the elevator pool at Buffalo, N. Y., are becoming very shaky. The Kellogg elevator has pulled out of the combination, and dissatisfaction is becoming general. At the present transfer rates it will be more profitable to run wild.

Erie Canal boatmen formed a combination July 26, the object of which is to avert "the threatened ruin of the canal and its commerce by the ruinous rates which have prevailed thus far during the season of 1894." A committee will have charge of the freight rate question.

The House Committee on Commerce has recommended the insertion in the river and harbor bill of a provision for \$100,000 for commencing work on the ship canal from Lake Washington to the sound in Washington, and \$250,000 for a boat railroad on Columbia River.

A bill has been introduced in the House of Representatives providing for an increase of the President's retaliatory power in case of discrimination against American interests on border canals. The Canadian Pacific is protesting against the bill, saying that absolute equality exists.

Reports from Buffalo state that lake vesselmen complain that cargoes of grain from Detroit are very carelessly weighed before being shipped. In many cargoes from that port the number of bushels is said to be greater or less than the amount supposed to be taken on board. Do the mistakes occur at point of shipment or point of unloading?

The Buffalo Merchants' Exchange has passed resolutions urging that the canal committee of the constitutional convention make an early visit to that port to investigate the necessity of the improvement of the Erie Canal for the commercial supremacy of the state. The Exchange appropriated \$250 to cover the expenses of the committee during their stay.

Since the opening of navigation to August 1 traffic on the Erie Canal this season has shown greater activity than for five years. During that time 2,888 canal boats have cleared from Buffalo, carrying 20,771,159 bushels of grain, as against 19,191,304 bushels during the same period of 1893, 11,089,697 bushels in 1892, 11,134,300 bushels in 1891, and 20,079,550 bushels in 1890.

Representatives of the South in Congress are interesting themselves in the Nicaragua Canal Bill. The measure provides for the issue of \$30,000 shares, the United States to take 700,000, and the President naming eight directors, the remaining three being chosen by Nicaragua, Costa Rica and the stockholders. This canal would shorten the water route from New York to San Francisco about 10,000 miles, and be of great value to Southern ports.

The bill providing for a canal connecting Lakes Erie and St. Clair has passed both houses of the Canadian Parliament and may very soon become a law. If so, the construction of the canal may be begun next spring and finished in a couple of years. The estimated total cost of the canal is \$3,200,000. The motive power to be used in the canal will be furnished by the canal company's tugs, all other power and lighting to be electrical.

The United States Attorney General has been requested to bring suit against the H. V. & A. R. R. Co. to restrain them from constructing and operating a railroad on the Hocking Canal. It is claimed that if the canal property of Ohio is abandoned there will be an irreparable loss. Part of this waterway has been abandoned for canal purposes and leased to a railroad company without the assent of the national government. The validity of the absolute ownership of

waterways by state governments will probably be tested by the investigation to follow.

The old, old grievance of the short cargo is being considered by the Vesselmen's Association of Duluth. Perhaps grain shipments will not always vary from the bill of lading, and the following clause will be inserted in drafts of cargoes after September 1, as a possible remedy for an unnecessary evil: "It is understood and agreed that the vessel waives all claim for payment for overage in grain cargoes and shall not be responsible for shortages in excess of one-third bushel per bushels carried, the vessel to deliver all grain carried and collect freight upon actual outrun."

A bill has been introduced in the House of Representatives providing for an appropriation of \$100,000 for a survey and estimate of the proposed canal to the Atlantic from Lake Ontario. It provides for the appointment of a commission of five, the majority of whom shall be engineers, to select a route and negotiate with Canada. The bill also provides for the construction, ownership and operation of the canal by the United States. This is one of the greatest and perhaps one of the most chimerical of all our late canal projects, and it is very doubtful if this bill passes.

The freight market has been dormant for some time, and exports nil, but as lay days expire, or approach the end, vessels move sluggish toward destination. Two clearances in a month is looked upon now as almost activity, while a few years ago two a day excited no comment. The Argentine seems to be awake while California is asleep. Options in wheat again improved yesterday due to further disaster to the corn crop in the middle West. That, however, does not help the export trade, and in addition to nearly an average crop here, there is a big surplus of old stock on hand, many believing the visible supply June 1 being far below actual stocks.—*San Francisco Commercial News*.

ITEMS FROM ABROAD

According to an official report the corn crop of Hungary will be much smaller than that of last year.

The corn crop in Roumania has been seriously injured by drought, and the millet crop is expected to be small from the same cause.

It has been formally announced that the International Grain and Seed Congress will be held at Vienna, August 27 and 28, notwithstanding the protests.

Imports of hay into the United Kingdom during June amounted to 16,000 tons, and during the six months from January to June the imports amounted to 184,000 tons.

In 1893 New Zealand produced 8,378,217 bushels of wheat, 9,893,989 bushels of oats and 654,231 bushels of barley, as against a production in 1893 of 4,891,695 bushels of wheat, 12,153,068 bushels of oats and 724,653 bushels of barley.

The importation of wheat and flour into the United Kingdom for the cereal year beginning Sept. 1, 1893, and ending July 21, 1894, was 18,976,223 quarters (of 480 pounds each), against 18,804,916 quarters for the same period in 1892-93.

According to official returns Italy imported during June 160,000 quarters (of 480 pounds each) of wheat. The total from Aug. 1, 1893, to end of June, 1894, was 2,460,000 quarters, compared with 4,380,000 quarters in the corresponding eleven months last season.

A hundred Budapest grain firms have resolved not to attend the Vienna International Grain Congress because they have received no guarantee that the authorities will be able to protect the persons and properties of visitors, owing to the anti-semitic agitation among the populace of Vienna.

The attention of the Secretary of State of Foreign Affairs of Great Britain has been called to the delay occurring in the loading of vessels at Odessa. In January and February 130 steamers lost 1,113 days in waiting for berths in that port at a loss of £27,800 all for want of proper accommodation.

Korea has for some time been able to export rice to Japan, but will probably be compelled to import much of her grain this year. The rice fields especially are said to be very much neglected, and the prices are flying skyward at the Exchanges. If the war lasts long enough the usual fortunes will be won and lost. Louisiana has appropriately produced the finest crop of rice ever raised in that state.

According to the report of the Indian Department of Revenue and Agriculture on the winter oil seeds crops of 1893-94 the total area of rapeseed was 2 per cent. above that of the previous year, but 6 per cent. below normal. Unfavorable weather greatly reduced the yield, especially of rape and mustard seed. In this season of 1893-94 linseed has yielded 604,000 tons,

against 584,000 tons in the preceding season, and an average of 630,000 tons in previous seasons. Rape and mustard seed yielded 781,000 tons, against 987,000 tons in the preceding season, and an average of 1,141,000 tons in previous seasons.

A Buenos Ayres paper says that Sante Fe grain growers are sowing more wheat than ever, and believe themselves a match for the world in wheat culture, the American farmer not excepted. This, however, does not agree very well with the fact that many farmers in districts distant from the seaboard have given up wheat for alfalfa, for the good reason that wheat cannot be profitably raised by them at present—*even in Argentina*.

The Turkish government is making an effort to prevent an excessive depreciation in the price of cereals in the producing centers. The Anatolian Railway Company has consented to a reduction of 25 per cent. in transport rates, and the government has decided to abolish the tax for hospitals which has heretofore been levied on cart charges of cereals conveyed to railroad stations, and also to purchase only home grown grain for its own needs.

Holland imported during June 700,000 quarters (of 480 pounds each) of wheat, 266,000 quarters of rye, 94,000 quarters of maize, 205,000 quarters of barley and 65,000 sacks of flour. She exported during June 460,000 quarters of wheat, 87,000 quarters of rye and 13,000 sacks of flour. The net import of wheat and flour during the eleven months ending with June totalled 1,735,000 quarters, compared with 1,375,000 quarters in the corresponding period last season.

The importations into Sweden for the 11 months ending June 30, as compared with the same period of time in 1892-93, were as follows: Wheat 503,000 quarters (of 480 pounds each), against 496,000 quarters, rye 307,500 against 339,000 quarters, barley 50,500 against 54,000 quarters, maize 36,800 against 20,500 quarters since Jan. 1, 1893. Exports for the same period of time were: Oats 1,020,000 against 1,470,000 quarters, barley 24,770 against 34,200 quarters, wheat 105 against 200 quarters, rye 660 against 1,350 quarters.

The United States Consul at Mexico has reported that indications are for a good corn crop, and consequently light importations from the United States, but the latest dispatches are to the effect that owing to drought the first crop of corn will be almost a failure. Recently rains have fallen at the City of Mexico, but were mostly confined to that locality. In the Northern states it is learned that the wheat yield is very light and unless the late corn crop should prove to be unusually large importations of cereals from the United States will have to be made.

The American minister at Buenos Ayres, Argentina, reports that last year's crop of wheat in that country yielded at the rate of 17 bushels per acre, the normal average yield being about 13 bushels. He estimates the exportation of the last three months at 36,000,000 bushels, and thinks there is enough remaining for exportation of 30,000,000 more, the price received being about 37 cents per bushel in gold. He makes the flour exports about 30,000 tons. An increase of 20 per cent. in area is estimated for the next crop, but the product is not expected to increase much, as the yield will probably be less.

It has long been remarked as an anomaly that whereas Black Sea rye and maize are sold with a guarantee of condition on arrival, barley should still be sold tale quale. The Bristol Channel and West of England Corn Trade Association, at a special meeting held in Bristol recently, decided that after the 1st of August all purchases of barley made by members of the association shall be on rye terms, and the necessary instructions to brokers have been given. There is every reason to believe that the change will be readily consented to by all sellers of repute.—*Corn Trade News, Liverpool*.

WHY NOT TRY INTIMIDATION?



SUFFERING MORTAL (bursting into the office of Jupiter Pluvius)—"Look here, J. Pluvius, I'm here to say that, if you don't come down with a few gallons of rain right away, by all the gods, I'll blow you up with this rain-machine!"

LATE PATENTS

Issued on June 26, 1894.

ELEVATOR AND DUMP.—William L. Oakes, Decatur, Ill. No. 521,888. Serial No. 504,140. Filed March 19, 1894.

GRAIN METER.—Chester L. Wylie, Valley City, N. D., assignor of two-thirds to Ole P. Enerson, same place, and Smith B. Clary, Fargo, N. D. No. 521,904. Serial No. 497,662. Filed Jan. 22, 1894.

METALLIC GRAIN STORAGE BUILDING.—Edward O. Fallis, Toledo, Ohio. No. 521,951. Serial No. 489,953. Filed Nov. 3, 1893.

HAY PRESS.—Robert H. Walton, Walnut Springs, Texas. No. 521,923. Serial No. 493,351. Filed Dec. 11, 1893.

Issued on July 3, 1894.

ATTACHMENT FOR BALING PRESSES.—John J. Hiser, Arcadia, La., assignor of one-half to Jasper M. Colvin, same place. No. 522,208. Serial No. 465,334. Filed March 9, 1893.

APPARATUS FOR CLEANING GRAIN OR OTHER MATERIALS.—Henry Jones, Philadelphia, Pa. No. 522,421. Serial No. 480,041. Filed July 10, 1893.

DELIVERY APPARATUS FOR PNEUMATIC GRAIN CONVEYORS.—Frederic E. Duckham, London, England. No. 522,457. Serial No. 493,696. Filed Dec. 14, 1893. Patented in India Oct. 28, 1893. No. 263.

PNEUMATIC GRAIN CONVEYOR.—Frederic E. Duckham, London, England. No. 522,458. Serial No. 493,698. Filed Dec. 14, 1893. Patented in India Oct. 28, 1893. No. 263.

Issued on July 10, 1894.

CORN SHELLER.—George W. Packer, Rock Falls, assignor to the Keystone Manufacturing Company, Sterling, Ill. No. 522,669. Serial No. 498,321. Filed Jan. 29, 1894.

GAS ENGINE.—Feodor Hirsch, Steinway, N. Y. No. 522,712. Serial No. 484,930. Filed Sept. 6, 1893.

EXPLOSIVE GAS ENGINE.—Jesse Walrath, Racine, Wis. No. 522,811. Serial No. 472,681. Filed May 2, 1893.

MALT GRINDING MILL.—John Brauer, Cincinnati, Ohio, assignor to the Francis Fritsch Manufacturing Company, same place. No. 522,584. Serial No. 495,396. Filed July 25, 1892. Renewed Jan. 2, 1894.

Issued on July 17, 1894.

SCREW CONVEYOR.—Faustin Prinz, Milwaukee, Wis. No. 523,237. Serial No. 493,865. Filed Dec. 16, 1893.

GRAIN DRIER.—Irvin G. Hooper, Newark, N. J. No. 522,985. Serial No. 474,058. Filed May 13, 1893.

GRAIN SCOURING OR POLISHING MACHINE.—Geo. W. Mead, Tecumseh, Mich. No. 522,996. Serial No. 481,961. Filed July 31, 1893.

HAY PRESS.—Skiles W. Bricker, Harrisonville, Mo. No. 522,960. Serial No. 502,612. Filed March 7, 1894.

PLATFORM SCALE.—Harvey L. Fisher, Des Moines, Iowa. No. 523,142. Serial No. 475,537. Filed May 25, 1893.

GRAIN WEIGHER.—Gustav Anderson, Wells, assignor to the Minneapolis Threshing Machine Company, Minneapolis, Minn. No. 523,191. Serial No. 501,492. Filed Feb. 26, 1894.

Issued on July 24, 1894.

GAS ENGINE FOR INTERNAL COMBUSTION ENGINES.—William St. G. Elliott, Jr., Walden, N. Y. No. 523,628. Serial No. 451,774. Filed Nov. 12, 1892.

OIL ENGINE.—Hugh Campbell, Halifax, England. No. 523,511. Serial No. 497,143. Filed Jan. 17, 1894.

WEIGH HOPPER FOR PLATFORM SCALES.—Frederick W. Bond, St. Louis, Mo. No. 523,454. Serial No. 499,162. Filed Feb. 5, 1894.

Issued on July 31, 1894.

BALING PRESS.—Moses C. Nixon, Omaha, Neb. No. 523,681. Serial No. 432,674. Filed May 11, 1892.

CHUTE FOR LOADING VESSELS, CARS, ETC.—James M. Dodge, Philadelphia, Pa., assignor to the Dodge Cold Storage Company, Naugatuck, Conn. No. 523,551. Serial No. 510,602. Filed May 9, 1894.

CONVEYOR.—Kaietan Michalouskj, Munhall, Pa. No. 523,674. Serial No. 499,588. Filed Feb. 9, 1894.

REACTIONARY GAS MOTOR ENGINE.—William A. Shaw, Pittsburg, Pa. No. 523,734. Serial No. 251,754. Filed Oct. 7, 1887.

Issued on August 7, 1894.

PLATFORM SCALE.—Marlou H. Winslow, Terre Haute, Ind., assignor of two-thirds to George Licht

and James J. Keeney, same place. No. 524,271. Serial No. 476,283. Filed June 1, 1893.

EXPIRED PATENTS.

[The following patents have expired since our last issue.]

PORTABLE CORN CRIBS.—Benj. F. Bedwell, Overton, Mo. No. 192,410.

GRAIN SEPARATORS.—James F. Hatfield, Liston, Ind. No. 192,505.

GRAIN SEPARATORS.—William J. McCulla, Esterville, Iowa. No. 192,445.

SEED EXPORTS AND IMPORTS.

Seeds valued at \$11,614 were exported during June, according to the report of the Bureau of Statistics, against an amount valued at \$153,723 exported during June, 1893; and during the twelve months ending with June seeds valued at \$7,941,935 were exported, against an amount valued at \$3,993,729 exported during the twelve months ending with June, 1893. Clover seed amounting to 525 pounds was exported in June, against 254,520 pounds exported in June, 1893; and during the twelve months ending with June 45,418,358 pounds, valued at \$4,540,822, were exported, against 8,189,553 pounds, valued at \$988,029, exported during the twelve months ending with June, 1893.

Cotton seed aggregating 86,540 pounds was exported in June, against 377 pounds in June, 1893; and during the twelve months ending with June 5,419,056 pounds, valued at \$41,866, were exported, against 4,519,327 pounds, valued at \$35,809, exported during the twelve months ending with June, 1893.

There were 2 bushels of flaxseed or linseed exported in June, against 97,599 bushels in June preceding; and during the twelve months ending with June 2,047,836 bushels, valued at \$2,426,284, were exported, against 1,837,370 bushels, valued at \$2,195,374, exported during the corresponding months ending with June preceding.

Timothy seed aggregating 121,490 pounds was exported in June, against 10,772 pounds exported in June preceding; and during the twelve months ending with June 10,155,887 pounds, valued at \$449,207, were exported, against 7,077,131 pounds, valued at \$504,937, exported during the corresponding months ending with June preceding.

Other seeds aggregating an amount valued at \$5,630 were exported during June, against an amount valued at \$9,653 exported in June preceding; and during the twelve months ending with June other seeds valued at \$483,756 were exported, against an amount valued at \$269,580 exported during the corresponding months ending with June preceding.

Flaxseed aggregating 175,190 bushels, valued at \$164,968, was imported in June, against 11,857 bushels, valued at \$14,866 imported in June, 1893; and during the twelve months ending with June 592,820 bushels, valued at \$701,866, were imported, against 112,015 bushels, valued at \$146,818, imported during the twelve months ending with June preceding. Other seeds valued at \$13,950 were imported in June, against an amount valued at \$23,198 imported during June preceding; and during the twelve months ending with June other seeds valued at \$365,621 were imported, against an amount valued at \$514,644 imported during the twelve months ending with June preceding.

TO AVOID SHRINKAGE IN SHIPPING.

Dr. J. Ward Wilson, Traer, Iowa, has recently made public the following suggestions as to feeding steers so as to avoid shrinkage in shipping to market:

"In trying to find out a better way than the usual custom of shutting off the grain feed twenty-four hours before shipping we shut off water the evening before and gave them all the corn they could eat the morning they were to go. Having access to plenty of good hay all the time they were not disposed to eat much. Now, if you ever noticed, a change of food after a constant diet of one thing is relished by others than steers. We had fed a lot of sheaf oats once a week, and noticing that they left everything else and stuck to the oats until consumed we concluded to fill the car racks with them. Having done so we loaded twenty 1,300-pound steers in each car and shipped them 300 miles with only thirteen pounds shrink per head. At the end of their destination there was not a straw left, and we believe they would have eaten more if they had had it. It will be noticed that a stomach full of corn and oats caused them to drink better at the stock yards than if they had been salted at home. We never salt, because it acts as a cathartic. This is a great item of economy."

Hard times and low prices have had their effect on the elevator business at the head of the lakes during the crop year ending July 31. The total wheat receipts for the year at the head of the lakes were about 28,500,000 bushels as against about 38,500,000 for the year previous.—*Telegram, Superior, Wis.*

PRESS COMMENT.

RAILROADS IN THE ELEVATOR BUSINESS.

We imagine that the railroads, especially those operated by the more astute managers, will sooner or later enter into the business of grain storing, to the confusion of the elevator people and the encouragement of the miller. In lieu of concessions in freights, free storage for a limited length of time, if offered by the railroads, would prove a winning move.—*Northwestern Miller*.

THE ERIE CANAL.

The Constitutional Convention seems to be afraid of the canal question. The proposition to improve the Erie and Oswego Canals so as to give them nine feet depth of water and the Champlain Canal seven feet is even having lukewarm support, and yet the Welland Canal at present is fourteen feet deep and they propose to increase it to twenty-one feet. Canada is hustling hard to get a good deal of our trade in this country, and has taken some already. This country is supposed to be a go-ahead, progressive nation, but in some things we are way behind the times.—*Lumber Trade Gazette, Buffalo*.

IGNORING SHIPPERS.

The error of the railways arises from the fact that in formulating bills of lading they usually ignore the shippers. Transportation is a joint matter in which carrier and shipper are equally interested; and yet rarely, if ever, do we hear of the railway associations seeking a conference on questions of mutual interest with the trade bodies. This same question of an equitable bill of lading arose recently between the ocean carriers and their patrons, touching the question how far the owners of vessels should be held responsible for losses at sea. A conference between those interested was held, and after a discussion a form of bill of lading was agreed upon.—*New York Post*.

UNIFORM GRADES FOR HAY.

The one great and all important question in the shipping of hay is that of grades. Every shipper, no doubt, has been more or less bewildered by the great difference existing in grades of hay in the different markets. The time will soon be when it will be necessary to have a uniform method for grading hay. The price of hay is governed by the grade to a great extent. Very few shippers pay any attention to grades when baling and loading, leaving it to be done after reaching the market. This practice, we think, comes more from habit than carelessness. With a universal rule for grading, shippers could ship hay to any market and know that it would grade the same everywhere.—*Hay-Men's Gazette*.

CAUSE OF LOW PRICE FOR WHEAT.

There seems to be a craze among producing countries to cheapen wheat. Over-production is the principal cause of the low price, the demand is not equal to the supply. For years we thought, for years Europe thought, that America held the key to the wheat bin, but corners in Chicago undid us, opened their eyes, forced them to hunt for cheaper wheat, and robbed us of our market. The greed of speculators has reduced us to the level of a competitor for the favors of Western Europe. Russia, India, Australia and Argentina have entered the race, and at the present moment our position is not a commanding one. They buy our wheat at their own price or not at all. If they won't buy we fill them up with consigned wheat and flour.—*Mail and Express, New York*.

CONSIGNING TO UNKNOWN COMMISSION MERCHANTS.

A new commission concern, if it is honest, will not send out attractive quotations, exalting above the market, and tell of its ability to sell at once at the outside quotations all the produce which may be shipped. More than one shipper has learned to his sorrow and loss that such letters are snares to catch suckers. When once hay is consigned to the dishonest commission merchant, the shipper begins to learn how little he knows about a business to which he has devoted many years of hard work. Although he may have shipped choice timothy, when it gets into the hands of one of these fly-by-night commission merchants it is condemned for one reason or the other, and the shipper is lucky if he realizes the inside quotations for the lowest grade of the market. In many instances he is beaten out of his consignment altogether.—*Hay There*.

The first car of new barley arrived at Chicago July 24, coming from Minneapolis. It was of good color, but rather small berry; it weighed 45 pounds to the bushel and graded No. 3.

Fires, Casualties, Etc.

Bassett, Huntington & Co. of McGregor, Iowa, lost an elevator by fire August 7.

Extensive corn cribs at Lincoln, Ill., were destroyed by fire August 8, at a loss of \$30,000.

J. J. Badenoch & Co., dealers in grain and hay at Chicago, Ill., have suffered a loss by fire.

S. K. Chambers & Co.'s grain warehouse at Elkview, Pa., was recently burned at a loss of \$6,000.

Wm. Burchell's grain and feed store at Janesville, Wis., suffered some damage by fire July 16.

The Decorah (Iowa) Elevator was burned August 7 with a quantity of grain. Partially insured.

B. K. Windham & Co., dealers in grain at Glenwood, Iowa, recently sustained a loss by fire.

David Milligan's elevator and lumber yard at Jefferson, Iowa, was destroyed by fire August 2.

An elevator and other property at Newton, Iowa, was destroyed by fire July 18. Total loss \$25,000.

Duncan Bros., dealers in grain, hay, etc., at San Francisco, Cal., have recently sustained damage by fire.

A building at Crookston, Minn., used as a grain warehouse, was destroyed by a fire set by tramps recently.

A grain elevator and other property at Lincoln, Wis., was destroyed by fire July 14. Loss \$50,000; insurance \$5,000.

John Morris, a grain merchant at Davis, Ill., had a fall from a ladder recently and sustained severe injuries. He will recover.

The Christian Elevator at Valley City, N. D., was recently destroyed by fire. The fire is supposed to have been set by tramps.

The brewery of Lampe & Kaiser, Muscoda, Wis., was destroyed by fire July 20. Loss \$10,000; about half covered by insurance.

Walter Schroggins, 13 years old, of Morgantown, Ind., while at play in a wheat bin in an elevator was caught in a chute and suffocated.

A fire which originated in the engine room of C. F. Freeman & Co.'s elevator at River Falls, Wis., did damage to the extent of about \$100.

N. Pasco's double corn crib at Tremont, Neb., was burned August 13, together with 12,000 bushels of old corn and considerable machinery.

The grain elevator, grist mill and barn owned by E. J. Martz at Weston, Ohio, was destroyed by fire, July 30, at a loss of \$5,500. Partly insured.

Charles Bonner, formerly in the grain commission business at Minneapolis, has been adjudged insane. Business troubles caused his aberration.

A large elevator belonging to Wackerbarth & Blower at Independence, Iowa, was destroyed by fire July 24. Loss \$10,000; partially insured.

Jacobson & Bealle's elevator at Niantic, Ill., was burned on the night of August 11, at a loss of \$8,000 on the building and grain. Insurance \$4,650.

E. L. Chatten & Co.'s elevator at Hollyrood, Kan., had a flood of eight feet of water in its basement recently, sustaining a slight damage therefrom.

Milmine, Bodman & Co., grain dealers at Chicago, Ill., lost their elevator at Ogden by fire August 7. About 8,000 bushels of grain were burned. Loss \$8,000.

C. Bridgman's hay barn at St. Cloud, Minn., was burned August 3 together with 100 tons of hay and a large amount of lumber. Loss on building and hay \$1,000.

McCaull, Webster & Co.'s elevator at Aberdeen, S. D., was burned July 31 together with about 4,000 bushels of wheat and flax. The loss is \$4,000; fully insured.

An explosion of malt dust set fire to the Enterprise Brewing Company's premises, San Francisco, Cal., last month. The blaze was speedily extinguished, with slight damage.

The elevator of G. H. Thayer & Co. of Huntington, Ind., was burned August 8, together with 15,000 bushels of wheat and 5,000 bushels of oats. The loss on the building was \$20,000, insured for \$6,000; loss on the grain \$10,000, insured for \$3,000.

In a disastrous fire at Gifford, Ill., August 9, which destroyed the business portion of the town, entailing a loss of about \$100,000, the following grain companies were burned out: Perring & Wood, grain office, loss \$500, no insurance; Watson & Reynolds,

grain dealers, loss \$2,600, insurance \$300; Carrington, Hannah & Co., loss on elevator \$15,000, on grain \$2,500, insurance unknown.

Jas F. Kenney, a grain dealer at Boston, Mass., was burned out July 23. The fire was supposed to have originated through spontaneous combustion. He will probably rebuild.

A. Meyer's grain elevator at Listowel, Ontario, was destroyed by fire, July 31, at a loss of \$9,000; insured. Some small boys were playing with matches just before the fire started.

At the recent Rock Island wreck in Nebraska, Mr. Counselman, an elevator builder of Narka, Kan., and Munger, a traveling man for Counselman & Co. of Chicago, were killed.

The old Lebanon brewery at Lebanon, Ind., which has been used as a storehouse for some time by J. E. Pinnell, was destroyed by fire August 3 at a loss of \$5,000. No insurance.

Winter Bros.' elevator at Glenwood, Iowa, was burned to the ground July 26 together with a quantity of grain. Loss \$2,500; insurance on building \$1,500, and on grain \$200.

In the fire which destroyed the business portion of Chenoa, Ill., July 24, Haynes, Gordon & Co. and E. D. Churchill & Sons, grain dealers, were burned out at a loss of \$3,000 each.

Charles Counselman's elevator at Grinnell, Iowa, was destroyed by fire, July 18, at an estimated loss of \$20,000. The Newton Elevator Company's elevator also suffered a slight loss.

The Cincinnati Brewery at Hamilton, Ohio, together with a large amount of hops and grain, was destroyed by fire July 16. Loss estimated at \$40,000. The company will rebuild at once.

Heath's elevator at Lebanon, Ind., together with considerable other property, was destroyed by fire August 6 at an aggregate loss of \$20,000. Little or no insurance. An incendiary set the fire.

Moses Weinburg's elevator at Augusta, Ill., which had just been completed, was burned to the ground July 24. No insurance had been taken out. Incendiary is suspected. The elevator will be rebuilt at once.

B. Oleson, a grain trimmer in O'Neill's elevator at Chicago, was smothered to death July 26. He was trimming grain at the top of the elevator when a rush of grain knocked him down and heaped in tons over him.

The granary belonging to John F. Garth & Co. at Sturgis, Ky., collapsed recently. It had 25,000 bushels of wheat stored. It always pays to have a legitimate builder construct grain houses; they respect the laws of gravity.

Mann & Boatman's elevator, operated by Wetzell Bros., near Paris, Ill., was destroyed by fire, July 20, together with about 2,200 bushels of corn and 1,000 bushels of wheat. Loss about \$3,000. The building was insured.

The railroad and freight storage building at Massey, Md., was burned, July 29, together with 1,100 bushels of wheat, etc. The fire is attributed to spontaneous combustion from a quantity of baled straw which was in the building.

In the fire which destroyed the Globe Milling company's mill at Watertown, Wis., August 12, the elevator and wheat stored therein were seriously damaged. The total loss was about \$70,000, the total insurance \$46,000.

Farlow & Fleming's new elevator at Allenville, Ill., was destroyed by fire July 12. Locomotive sparks are supposed to have started the fire. It will be a total loss, as it had just been erected and no insurance had been taken out. The owners will rebuild at once.

The Hamlet Hay Company of Hamlet, Ind., were burned out July 26, entailing a heavy loss on the house, machinery and 400 tons of hay, which was partially covered by an insurance of \$6,350. The fire is thought to have been started by a hot box on a line shaft.

The elevator, office and warehouse belonging to D. Miller & Son of Eldorado, Iowa, was burned August 11 at a total loss of \$4,500. Insurance \$2,000. A week previously this company lost a \$15,000 elevator at Jefferson, Iowa, by fire, the origin of which was unknown.

The Seymour elevator at Kenton, Ohio, was destroyed by fire August 2 at an estimated loss of \$15,000; partially insured. There were about 9,000 bushels of wheat, 2,000 bushels of oats in store at the time. The fire is supposed to have started from the engine room.

At the lumber yards fire at Chicago on the night of August 1 the Columbia Elevator, belonging to Geo. A. Seavers, sustained a loss, and S. K. Martin's elevator was burned to the ground. There was about 120,000 bushels of wheat in the Columbia, and bad it not been for the brave persistence of four men, who fought the encroachments of the fire on the roof, 200 feet above

the ground, the loss would have been heavy. S. K. Martin's loss was about \$250,000, partially insured. The loss on the Columbia amounted to \$1,000.

At Prairie du Chien, Wis., the plant of the Schumann & Menges Brewing Company was destroyed by fire. Loss \$30,000; partly covered by insurance.

The brewery of John Peacock & Son, Rockford, Ill., was found to be on fire early on the morning of the 2d ult. Damage to the extent of nearly \$20,000 was done before the flames were extinguished. No insurance. The brewery will be rebuilt at once.

One of the oldest elevators in Detroit, Mich., was badly damaged by fire July 24. It was so constructed that the firemen could not get at the flames, which were on the inside. It had long been out of use as an elevator and will probably be torn down. Loss about \$1,000.

The Northwestern Elevator, occupied by the Winona Milling Company, at Mankato, Minn., was burned to the ground on the night of July 29, together with about 40,000 bushels of grain and \$2,000 worth of machinery. Insurance not known. The fire started in the engine room.

OBITUARY

Frederick Kimmier, dealer in hay and grain at Elizabeth, N. J., is dead.

Joseph Cushing, of the firm of Joseph Cushing & Co. of Fitchburg, Mass., died July 17.

Charles Lederer, engaged in the grain and flour business at Cleveland, Ohio, died recently.

Charles Buchanan, who was in the grain business for some time at Toledo, Ohio, died August 8, after a protracted illness.

David Rothschild, a grain dealer at Davenport, Iowa, died recently. He was one of the most successful business men of his city, and his death is lamented by everyone with whom he came in contact in his business or social relations.

Ellery C. Spinney, a prominent member of the Chicago Board of Trade, died July 19 of Bright's disease. He was born at Lynn, Mass., Feb. 6, 1850, and came to Chicago in 1874, when he entered the grain commission business. He leaves a wife and five children.

John R. Hodson, an old and respected member of the Board of Trade, died at his home at Chicago, Ill., July 30. He was born in England and came to Chicago in 1853, joining the Board of Trade in the same year. He was an enthusiastic Mason, a business man of integrity, and he is remembered by his fellow-members on the board by the enviable title of "Honest John Hodson."

Louis Chapin, a pioneer business man of Rochester, N. Y., died August 1. He was born in West Springfield, Mass., Nov. 3, 1809. After a limited education he went to Rochester, N. Y., in 1827, and became a clerk in a forwarding office of the Erie Canal. He became interested in flouring mills, but in 1866 embarked in the grain business. Twenty years ago he retired from active business. Mr. Chapin was a born financier. He was very methodical in all his dealings and possessed a fine memory. He will long be remembered for his Christian works and public spirit.

CORN GOES UP.



THE MARKETS.

We will be pleased to publish under this head short reviews of the conditions ruling in the different markets. Copy must reach us by the morning of the 14th of each month.

GRAIN REPORT OF J. & M. SCHWABACHER, LIMITED, New Orleans, La., Aug. 10, 1894.—TIMOTHY HAY.—Receipts continue fair, and with moderate demand the market rules quiet. We quote Choice \$14.00@14.50; Strict Prime \$13.50; Good Prime \$13.00; Prime \$12.50 per ton. PRAIRIE HAY.—Quiet at \$6.50 per ton. CORN.—Stocks are rather small and firmly held at 63@65 cents per bushel sacked. WESTERN OATS.—In moderate supply and demand. Quotations are 38 cents per bushel for Choice Black Mixed. TEXAS OATS.—Still in large supply. Sales slow on basis of 35½@36 cents per bushel sacked for No. 2. WHEAT BRAN.—Steady at 75 cents per 100 pounds.

REVIEW OF THE DETROIT GRAIN MARKET FOR FOUR WEEKS, BY J. F. ZAHM & CO., Detroit.—The receipts of wheat here during the past four weeks have only been 811,067 bushels, compared with 1,662,033 bushels for the same time last year. The shipments during this period were 87,246 bushels, against 1,515,523 bushels last year. The total stock of wheat here at present is 1,302,051 bushels. Detroit has not received her usual share of wheat so far this season, owing to the high prices prevailing at Chicago, which has taken the wheat there. Illinois usually ships considerable wheat to Detroit, but so far the amount received from that state has been very small. Indiana is also shipping to Chicago, and some Michigan wheat is going there. Michigan, however, has shipped very little wheat so far, farmers in most cases holding for higher prices. Cash No. 2 Red closed here August 11 at 53½ cents, which is 2½ cents lower than a month ago. White wheat still commands a premium over the red; the demand being very good. In fact, cargo orders for white cannot be filled at present, owing to the small stock and light receipts. Detroit is practically the white wheat market of the country, and millers usually come here for this grade. Speculative business during the past month has been quite active, but not as large as in former years. Coarse grains have advanced considerably during the past month, and trade has been active, especially in oats. Shippers have sold liberally of August No. 2 white oats, and the East have been good buyers, and we believe 500,000 bushels of oats have been bought and sold here for August shipment.

GRAIN REPORT OF L. NORMAN & CO., LIMITED, Loudon, July 30, 1894.—Since our last report the wheat trade has ruled extremely dull, and prices have been daily trending lower. Buyers have apparently withdrawn from the market, and this attitude seems warranted in face of the liberal offers of new American wheat and pressure of Russian shippers to sell. The course of the market during the next month will mainly depend on the weather. Wheat cutting commences this week in the north of France, and in the following week the south of England will see the harvest in full swing. The business done during the week has been very limited, and prices are 9d to 1s lower. The following are c. i. f. prices taken during the week. La Plata sailer cargoes at 19s. Australians at 22s 6d. Hard Taganrog (Russian) parcels at 17s. Californian cargoes at 24s. New American Red Winter parcels at 19s 9d. HARD MANITOBA.—Quiet and offered cheaper; 2½ 6d c. i. f. has been taken to-day for a parcel August-September shipment to London. HARD DULUTH.—Very quiet. Early last week 24s c. i. f. taken for small parcel on passage. To-day there are sellers for shipment at this price, but no buyers. BARLEY.—Grinding harley quiet and slow to move in absence of demand. Malting qualities meet with slow trade. French and English prospects still promise well. OATS.—With liberal shipments this article has ruled quiet. For shipment, notwithstanding sellers are willing to take less money, the inquiry is poor. PEAS.—Firm. Sellers have reduced their limits for Canadian to 25s 6d c. i. f., but buyers are not disposed to pay over 25s c. i. f. HAY.—Foreign hay for near positions continues in demand, new English not yet being ready for use. For Canadian arrived sound delivered £4 2s 6d to £4 5s is the value. For prompt shipment there are buyers about £3 10s c. i. f.

GRAIN REPORT OF COLLINS & CO., Cincinnati, Ohio, August 11.—The past week has been one of continued excitement in the grain markets, the full effects of the drought becoming daily more apparent, and with the serious curtailment of the growing crop of corn, values fluctuated widely, and have ruled much higher. Toward the close of the week, the situation became more settled, with the drought partially broken by light local showers in most sections, affording considerable relief where generally needed, and causing a reaction from the extreme advance, with the markets inclined to rule some little lower, under prospects of more favorable weather conditions. WHEAT.—Is being more tenaciously held. Receipts for the week have been small, with the demand active, and prices are ruling higher. No. 2 Red at 50½@51 cents; No. 3 Red at 49 cents. CORN.—The arrivals are very small of shelled corn, and the offerings are selling very readily, with No. 2 White at 57@57½ cents; No. 3 at 56 cents; No. 2 Mixed and Yellow at 55½@56 cents; No. 2 White Mixed at 56 cents; No. 3 Mixed at 55 cents, the market closing steady, with the arrivals about all absorbed. EAR CORN.—Is in better supply, and prices are ruling lower, the demand not quite so active. Choice Yellow at 54@55 cents; Mixed at 52@53 cents; White at 53@54 cents for good qualities. OATS.—Under larger receipts and further declines in the outside markets, prices have ruled lower here, with more pressure to sell. No. 2 White at 35@35½ cents; No. 3 at 33½@34 cents; No. 2 Mixed at 31½@33 cents as to quality, No. 3 at 30½@31 cents, closing weak, with buyers generally holding off expecting lower prices. RYE.—Is very little offered, and rules steady, No. 2 at 45½@46 cents. HAY.—Receipts for the week 2,249 tons, shipments 413 tons. For the corresponding week last year receipts 1,311 tons, shipments 219 tons. The offerings of the new crop are quite liberal, and are crowding the market, which has the effect of causing prices to rule lower. The demand is principally for local consumption, and the top grades only are inquired for. Some demand for pure clover on account of the dry weather. Choice Timothy at \$11.00; No. 1 \$10.00@10.50; No. 2 \$9.00@9.50; Clover Mixed \$9.00; Pure Clover \$8.00@8.50. Straw is dull and not much wanted. Sales of good bright wheat at \$3.75@4.00. MILL FEED.—The continued dry weather has caused an increased demand and prices rule higher, and the offerings are not sufficient for the trade requirements. Bran \$13.00@13.50; middlings \$13.50@14.00.

RICE IMPORTS AND EXPORTS.

According to the last report of the Bureau of Statistics rice aggregating 1,188,400 pounds, valued at \$45,934, was imported free of duty under reciprocity treaty with the Hawaiian Islands during June, against 395,000 pounds, valued at \$14,813, imported in June, 1893; and during the twelve months ending with June 8,915,483 pounds, valued at \$349,330, were imported, against 8,473,800 pounds, valued at \$349,560, imported during the corresponding months ending with June, 1893.

Of rice imported free of duty none was exported in June, against 1,771 pounds exported in June, 1893; and during the twelve months ending with June 8,830 pounds were exported, against 59,500 pounds, valued at \$1,697, exported during the corresponding months ending with June, 1893.

Dutiable rice aggregating 12,624,041 pounds, valued at \$196,066, was imported during June, against 3,080,529 pounds, valued at \$52,368, imported in June, preceding; and during the twelve months ending with June 77,351,183 pounds, valued at \$1,178,756, were imported, against 72,558,144 pounds, valued at \$1,249,065, imported during the twelve months ending with June preceding. Of dutiable rice we exported 1,020,579 pounds, valued at \$16,792, in June, against 893,836 pounds, valued at \$16,165, in June preceding; and during the twelve months ending with June 11,868,422 pounds, valued at \$208,059, were exported, against 10,811,072 pounds, valued at \$212,769, exported during the corresponding months ending with June preceding.

Rice flour, rice meal and broken rice amounting to 6,338,380 pounds, valued at \$90,237, was imported in June, against 6,120,021 pounds, valued at \$96,866, imported in June, 1893; and during the twelve months ending with June 55,588,761 pounds, valued at \$836,140, were imported, against 66,451,884 pounds, valued at \$1,191,526, imported during the twelve months ending with June, 1893. Of imported rice flour, rice meal and broken rice none was exported in June or in June, 1893. There was none exported during the twelve months ending with June, against 81,230 pounds, valued at \$1,700, exported during the corresponding months ending with June, 1893.

VALUABLE BOOKS FOR GRAIN DEALERS.

The following standard works will be sent, postage paid, on receipt of prices given:

ROBINSON'S TELEGRAPH CIPHER.—The publishers have recently revised this excellent work, and we are now prepared to supply the trade. Cloth binding, \$1.50; leather.....\$2.00

WEIGH BOOKS.—Containing 125 perforated leaves with four weigh tickets and four stubs to each leaf, well printed upon good paper. The books are well bound. Copies will be mailed to any address for \$1.00

CLARK'S VEST-POCKET GRAIN TABLES.—A very useful and handy little book for grain buyers; to be used in reducing to bushels any quantity of grain or seeds up to 100,000 pounds. Size 2½ by 8½ inches, 16 pages. Leatherette.....\$1.75

KINGSLEY'S DIRECTORY is the only complete work containing the name and address of every firm engaged in the following lines of business: Milling, grain, flour and feed, hay and straw, butter and eggs, fruit and produce, malting, brewing, distilling and poultry. Over 500 pages, octavo, substantially bound in cloth. Indispensable to those who wish to reach the lines of business named above. Price.....\$3.50

TELEGRAPH CIPHER AND DIRECTORY TO NEW ENGLAND TRADE.—A new guide to carload buyers of grain throughout New England. A list of those engaged in the grain, feed and flour trade. Western grain shippers and millers wishing to do business in this territory will find this directory invaluable. The telegraph cipher has met with favor and is highly recommended by users. In fact the code part of the book is considered by many shippers superior to any other in use. It is modern and practical, a great money saver and will prevent mistakes. Nicely bound in leather,.....\$3.00

POUNDS TO BUSHELS.—These tables which show the number of bushels in any quantity from 20,000 to 70,000 pounds were compiled for the Chicago Grain Inspection Department. They are well printed on good paper and conveniently arranged for quickly finding the number of bushels in a carload. Each book contains ten leaves and each leaf is indexed at margin and printed on one side only. Each book is neatly bound in cloth. They will save clerks much labor and prevent errors in reduction. Price for "OATS," \$1.00; "BARLEY," \$1.00; "CORN AND RYE," \$1.00. The set.....\$2.50

ADAMS' CABLE CODEX.—This code is compiled especially for sending cablegrams and is used extensively in this country and abroad. The seventh edition, which is about to go to press, will contain 160 pages of cipher words, conveniently arranged. The code contains sentences covering and referring to buying and selling, condition of market, sterling money,

United States money, business, financial matters, letters of credit, drafts, standing of firms and many sentences used by travelers. The cost of the code is a mere nothing compared with the saving which can be made on one message. Price, postpaid.....\$0.55

DAVIS GRAIN TABLES.—These tables give the value of any number of bushels of produce weighing 60 pounds to the bushel from 25 cents to \$1.25 per bushel, and the value of any produce weighing 32, 48 and 56 pounds to the bushel at 15 cents to \$1.50. The book also contains Davis' Dockage Table, which gives the amount to dock any load of wheat up to 600 bushels at 1½ to 5 pounds' dockage. The book contains 219 pages of tables, printed on good paper, with large type, and well bound in cloth. The book is a new publication, and the arrangement of the tables is much more convenient than in some of the old publications. Price.....\$1.25

CLARK'S GRAIN TABLES.—This work is published in several different forms, for use in different lines of business. In these tables pounds are reduced to bushels, so that a buyer can quickly determine the correct number of bushels in a load without doing any figuring. Their use effects a saving every day of more than time enough to pay for them. The edition intended principally for reducing team scale weights to bushels contains nine tables, and is bound in paper. Price 50 cents. This will be found invaluable to country buyers. A new edition, intended for shippers and commission merchants, reduces any quantity up to 64,000 pounds to bushels. It contains 16 tables, and is neatly bound in cloth. Price.....\$1.50

ROPPS COMMERCIAL CALCULATOR.—A small manual in compact form which contains a new system of useful and convenient commercial tables. Also a "Practical Arithmetic for Practical Purposes" in which is embodied the shortest and simplest rules and methods known. It includes in its contents a table giving the value of cattle, hogs, flour, etc., for any amount ranging from 3 to 20,000 pounds, and in price from \$2.50 to \$6.75 per 100 pounds. It contains a table which shows the equivalent of English market quotations from 1 to 100 shillings in U. S. money. It also shows the freight on grain per bushel from 1 to 50 cents per 100 pounds. The grain tables show the number of bushels and odd pounds in any quantity of any kind of grain from 10 pounds to 100,000 pounds. The hay, straw and coal tables shows the value in tons of any amount ranging from 10 to 3,000 pounds at prices from 25 cents to \$18 per ton. The interest tables are very complete and give the interest for any amount for any time and for any rate per cent. ranging from 6 per cent. to 10. The millers' and farmers' exchange table gives the number of pounds of flour to be received from wheat ranging from 5 to 3,000 pounds and from 25 to 40 pounds to the bushel. Tables of money weights and measures are also included, and also the metric system. The book contains much other useful information. Price.....\$1.50

For any of the above, address

MITCHELL BROS. CO., 184 and 186 Dearborn street, Chicago, Ill.

LOCATIONS FOR FACTORIES.

The name of the Chicago, Milwaukee & St. Paul Railway has long been identified with practical measures for the general upbuilding of its territory and the promotion of its commerce, hence manufacturers have an assurance that they will find themselves at home on the company's lines.

The Chicago, Milwaukee & St. Paul Railway Company owns and operates 6,150 miles (9,900 kilometers) of railway, exclusive of second track, connecting track or sidings. The eight states traversed by the lines of the company, Illinois, Wisconsin, Northern Michigan, Iowa, Missouri, Minnesota, South Dakota and North Dakota, possess, in addition to the advantages of raw material and proximity to markets, that which is the prime factor in the industrial success of a territory—a people who form one live and thriving community of business men, in whose midst it is safe and profitable to settle. Many towns on the line are prepared to treat very favorably with manufacturers who would locate in their vicinity.

Mines of coal, iron, copper, lead and zinc, forests of soft and hard wood, quarries, clays of all kinds, tannery, flax and other raw materials exist in its territory in addition to the vast agricultural resources.

A number of new factories have been induced to locate—largely through the instrumentality of this company—at towns on its lines. The central position of the states traversed by the Chicago, Milwaukee & St. Paul Railway makes it possible to command all the markets of the United States. The trend of manufacturing is westward. Nothing should be permitted to delay enterprising manufacturers from investigating. Confidential inquiries are treated as such. The information furnished a particular industry is reliable. Address

LUIS JACKSON,
Industrial Commissioner, C. M. & St. P. R'y,
425 Old Colony Building, Chicago, Ill.

The Hay and Straw Dealers' Association of New York will meet at Hotel Vanderbilt, Syracuse, N. Y., on Tuesday, August 21, at 11 a. m.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

GAS AND GASOLINE ENGINES.

We can make specially low prices on gas and gasoline engines of from 1 to 5-horse power. Address
COLBORNE MFG. CO., 31-41 East Indiana street, Chicago.

OAT CLIPPERS WANTED; BOILER AND ENGINE FOR SALE.

I want to buy one or two second-hand oat clippers, and have two second-hand boilers and engines for sale cheap.

C. E. ACHORN, Sutherland, Iowa.

POSITION AS MANAGER WANTED.

Wanted—Situation as elevator manager or foreman by a strictly temperate young man of 10 years' experience as foreman and manager of elevators. A competent judge of all kinds of grain. Will be at liberty September 1. Best of references given. Address

X. Y. Z., care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

GRAIN TESTERS FOR \$7.

We will continue to sell 2-quart grain testers at \$7 cash with order. Every one guaranteed to be the Standard Winchester bushel. Over 100 were sold in December and January. We guarantee satisfaction and will refund money on return of tester if not satisfactory. Address

A. S. GARMAN & SONS, Akron, Ohio.

POSITION WANTED.

Wanted—Situation by a thoroughly competent grain elevator man. I have had three years' experience in the grain business, running an elevator of my own, but had not the money to run it successfully. Best of references from banks, grain and commission men. Address

J. S., care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

POSITION WANTED.

Situation wanted by a thoroughly competent grain elevator man. Has had several years' experience in the elevator business. Am not afraid of work. Fully competent of taking charge where a reliable man is wanted. Best references as to honesty, sobriety and ability. If preferred would take an interest instead of salary. Address

T. B., care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago.

DAVIS GRAIN TABLES.

The value of wheat or any grain at 60 pounds to the bushel, for any amount less than 100 bushels is shown without addition or multiplication, and for any amount over 100 and under 1,000 bushels, with but a single addition; at any price from 25 cents to \$1.25 per bushel. The value of bushels and pounds of other grain also is shown at 56, 48 and 32 pounds to the bushel at any price from 15 cents to \$1.50 per bushel. Price, postpaid, \$1.25. Address

E. D. DAVIS, 520 Nicollet Ave., Minneapolis, Minn.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

ENGINE AND BOILER FOR SALE.

A 10x20 engine and 24'x40" two-flue boiler for sale. In good order and running a 60-barrel flour mill. Cheap for cash. Address

D. S. GREENLY, Lebanon, Ohio.

ELEVATOR FOR SALE CHEAP.

A horse power dump elevator for sale cheap. Situated in one of the best grain growing sections of the state of Iowa. This is a bargain. Address
W. care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

ELEVATOR FOR SALE.

Elevator of a capacity of 8,000 bushels small grain, 4,000 bushels ear corn, fitted with two stands elevators, hopper scales, cleaner, roller feed mill, etc., for sale. Finest grain station in Central Illinois. Excellent competition. This is a money maker. *Terms cash.* No trades. Have several other good locations for sale. Address

MODEL ELEVATOR, care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

CLEANING ELEVATOR AT A BARGAIN.

An elevator on the line of the Chicago, Milwaukee & St. Paul Railroad, in the best grain section of Southern Wisconsin, with a paying and increasing business of cleaning grain in transit, is for sale. Cleaning and shipping capacity 1,000 bushels per hour; storage capacity, 25,000 bushels. Ironclad building; 45-horse power engine and boiler, feed rolls, etc. All in perfect condition and now in operation. A bargain for the right party. Address

WISCONSIN, care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

NO BETTER PROOF

Of the worth of the Demuth Check Scale Beams need be given than the fact that large elevator companies like the C. H. & D. and the Wabash of the Toledo, the Union Depot Elevator Company of Detroit, and the Armour of Chicago, have had the scale beams in their older elevators changed to check beams after having used the check beams in new elevators. If they had not proved to be valuable these companies and many others would hardly have incurred the expense of tearing their old beams out to have them replaced by check beams. Furnished only with Fairbank's Scales.

JENNINGS' CIPHER CODE.

Jennings' N. E. Telegraph Cipher contains many novel ideas, and is complete with instructions as to buying, selling, ordering, market advices, offers, bids, finance, bill lading, instructions, freight inquiries and advices, shipping inquiries and instructions, guaranteeing, etc., such as no other cipher contains. It will save you 25 to 50 per cent. more than any other code on your New England business; also giving names and addresses of 1,400 New England carload buyers. Send for circular issued March 1 giving names of firms up to date using the cipher and recommending it to the trade. Cost \$3, sent postpaid on receipt of price. Address

HENRY JENNINGS, 613 Chamber of Commerce, Boston, Mass.

ELEVATOR BUILDING AND MACHINERY.

A complete elevator with annex, total capacity about 300,000 bushels. The two houses are connected by three 24-inch rubber belt conveyors in the top and three screw conveyors, 14 inches in diameter, in the bottom. They contain one good steam engine 14x24 inches, of about 75-horse power, one 52-inch boiler, with 54 3-inch flues, one large main rubber belt and main line of shafting, six 14-inch rubber elevator belts with 12-inch buckets, three of the best Clarke Steam Shovels, three 16-inch oak tan leather cross belts, five large hopper scales. All of the above belts and machinery are in the best of order and are for sale, together with the buildings to be removed in a reasonable time. Address

W. T. CORNELISON, Agent, Peoria, Ill.

FOR SALE.

THREE GRAIN ELEVATORS

In Western Iowa on C. & N. W. R. R.

MARTIN D. STEVERS & CO.

COMMISSION MERCHANTS,
218 La Salle St., - CHICAGO.

BAGS! BAGS!!

For Grain or Anything.

Burlaps and Cotton Bags, Twine, etc.

Manufactory and Office:
Near Board of Trade,

W. J. JOHNSTON, 182 Jackson Street, CHICAGO, ILL.

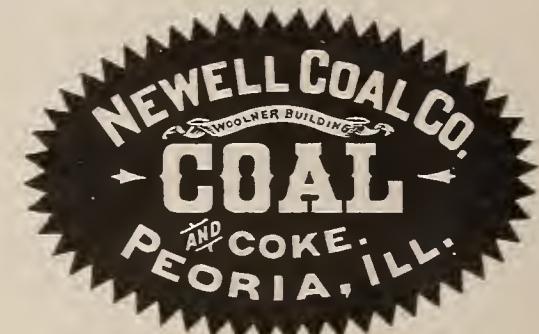
W. W. SHOCKEY, Millwright,

Makes a Specialty of Elevator Work, New or Old.

REFERENCES: Shellabarger Mill and Elevator Co., Decatur, Ill., Chapman & Son, Pittsfield, Ill. Address

919 W. Wood Street, Decatur, Ill.

ORDER YOUR COAL FROM



CHICAGO OFFICE, 355 Dearborn Street.

COMMISSION CARDS.

W. F. JOHNSON.

F. J. SCHUYLER.

W. F. JOHNSON & CO.,

Grain, Seed and Provision

COMMISSION MERCHANTS

Room 59 Board of Trade, CHICAGO.

Rooms 406-408 Corn Exchange, MINNEAPOLIS.

Room 317 Chamber of Commerce, ST. LOUIS.

Room 23 Chamber of Commerce, MILWAUKEE.

Address all Correspondence to and make all Drafts on Chicago.

Robert McKnight & Sons,

COMMISSION MERCHANTS,

AND DEALERS IN

GRAIN, FEED AND HAY,

2106 and 2108 Market Street, - PHILADELPHIA.

REFERENCES: Merchants' and Third National Banks, PHILADELPHIA.

OATS

D. K. REED & SON

202 Chamber of Commerce,

BOSTON, - MASS.

Distributors to New England and New York Points.

BUYERS, BROKERS, COMMISSION MERCHANTS.

Mention the AMERICAN ELEVATOR AND GRAIN TRADE.

E. L. ROGERS & CO.,

ESTABLISHED 1863.

COMMISSION
MERCHANTS,

GRAIN, Flour, Seed, Hay and Straw.

135 S. Second St., (Chamber of Commerce) PHILADELPHIA, PA.

Liberal advances made on consignments. Market reports furnished gratuitously on application. Correspondence solicited.

References: Corn Exchange National Bank.
Manufacturers National Bank.
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COMMISSION CARDS.

J. J. BLACKMAN.

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J. J. Blackman & Co.,

COMMISSION MERCHANTS,

WHEAT, CORN, OATS, BRAN, MIDDLEDINGS, SCREENINGS, HAY,
SEEDS, BEANS, PEAS AND CORN GOODS.

95 Broad Street, Rooms 604 and 605, - NEW YORK.

SHIP YOUR GRAIN

TO

P. B. & C. C. Miles,

COMMISSION MERCHANTS,

PEORIA, ILL.

Established 1875.

LIBERAL ADVANCES.

QUICK RETURNS.

REFERENCES:—Commercial Nat. Bank, Peoria Savings, Loan &
Trust Co., Peoria.**SHIP M. M. Freeman & Co.**
COMMISSION,
HAY, CRAIN, STRAW.

14 and 16 Pacific Avenue, CHICAGO, ILL.

Correspondence and consignments solicited.

Market reports furnished on application. Mention this paper

S. T. EDWARDS. E. J. LOOMIS. F. W. EDWARDS.

S. W. Edwards & Son,

ESTABLISHED 1870.

HAY, CRAIN AND FEED,
COMMISSION MERCHANTS.Office and Warehouse,
373-375 Carroll Avenue, Chicago.REFERENCES: { Union National Bank, Chicago, and
Dunn's Mercantile Agency.We are members of the Board of Trade and have salesmen at the
principal railroad yards.

Grain for Seed, Feed and Milling.

E. R. ULRICH.

E. R. ULRICH, JR.

E. R. ULRICH & SON,

Western Grain Merchants

And Shippers of Choice Milling White or Yellow Corn,

Also Mixed Corn, White Oats, Mixed Oats and Choice Red Winter
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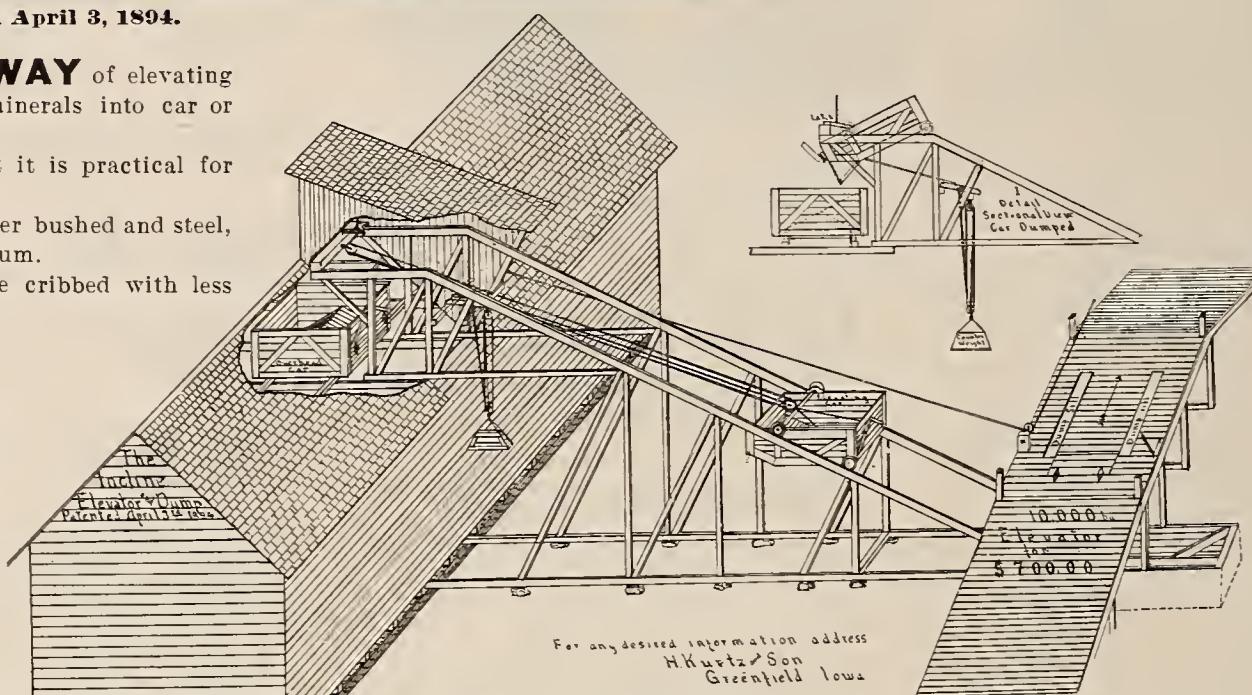
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Every team elevates its own load, thereby the power for elevating is obtained without cost.

A whole load is dumped at a time, making it practical to use an overhead car by which at the same cost you obtain more shipping bin capacity alone than all the storage and shipping bin capacity of a belt elevator.

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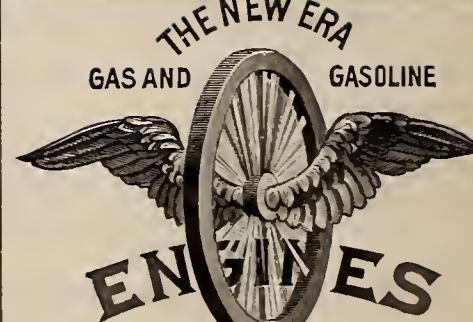
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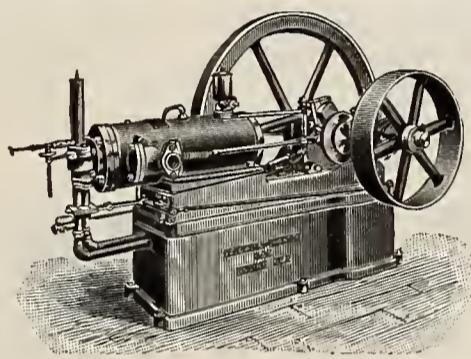
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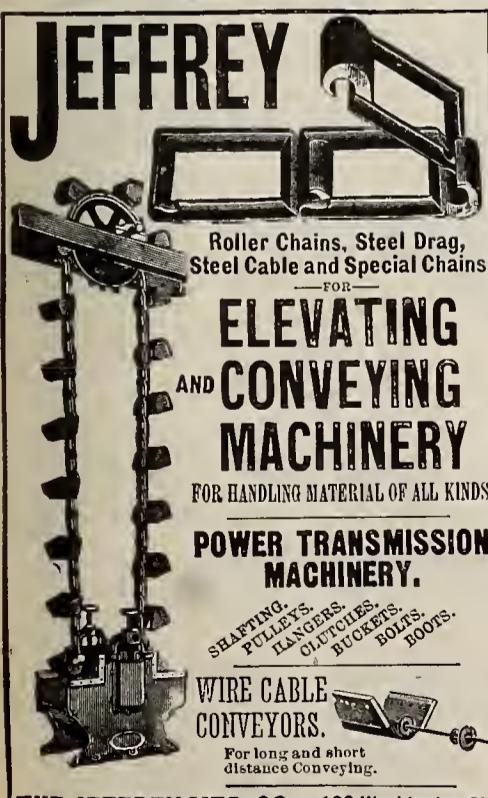


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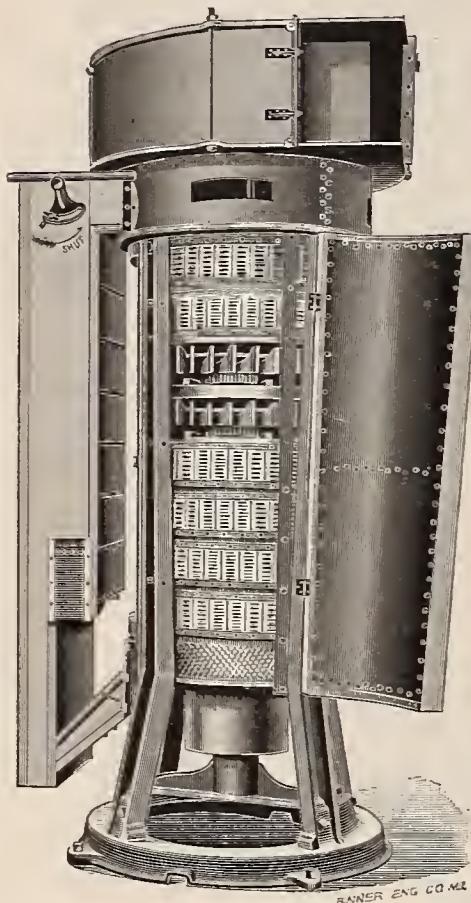
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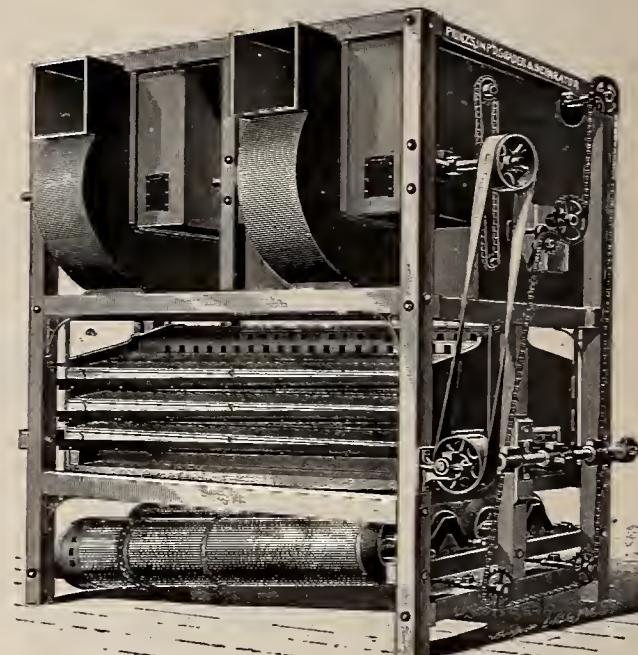
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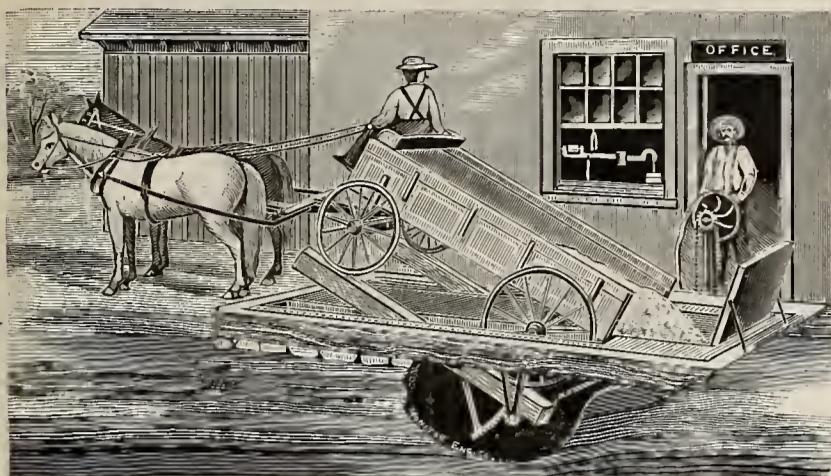
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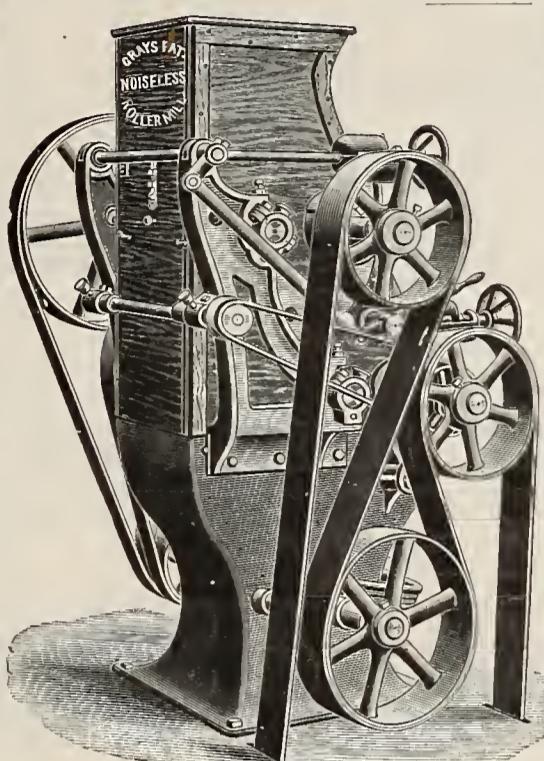
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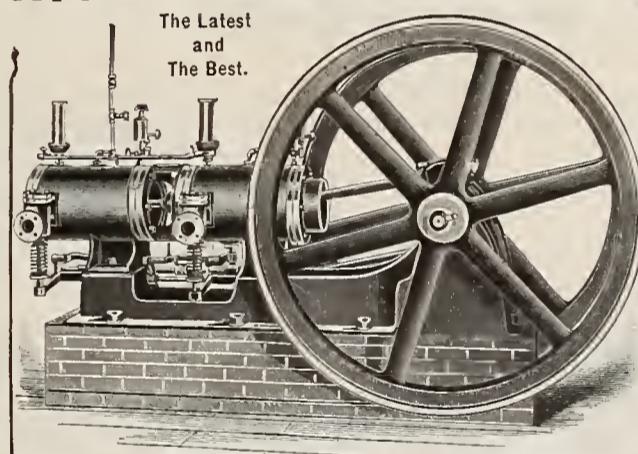
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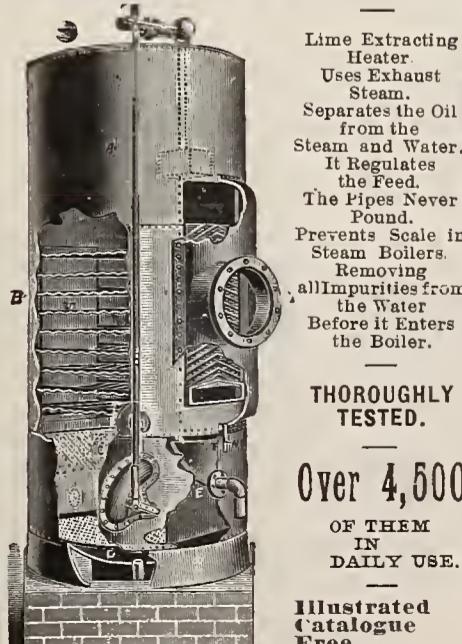
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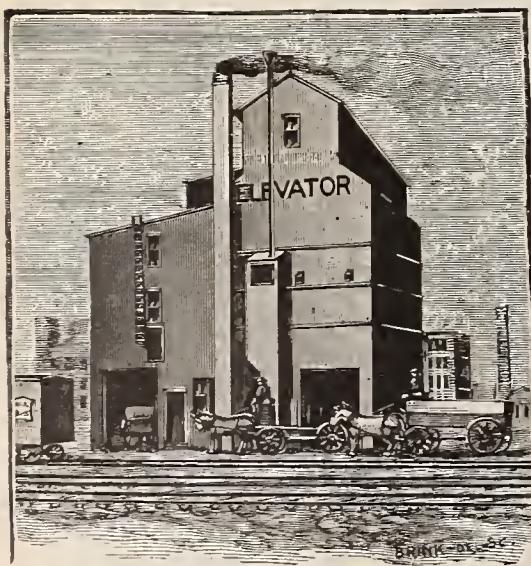
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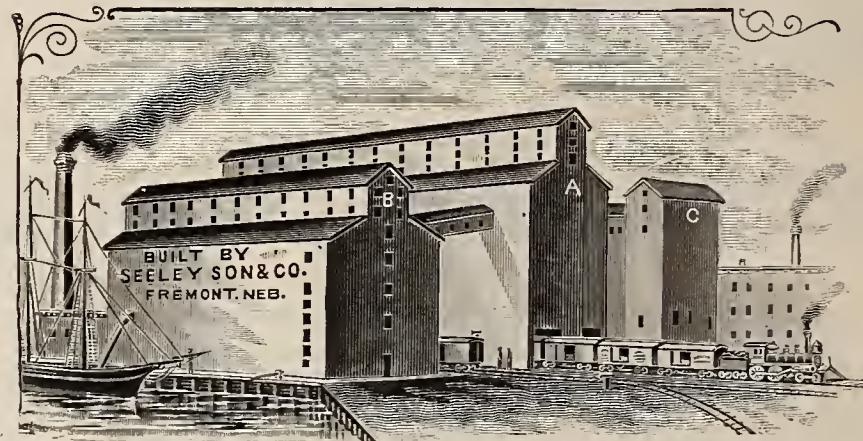
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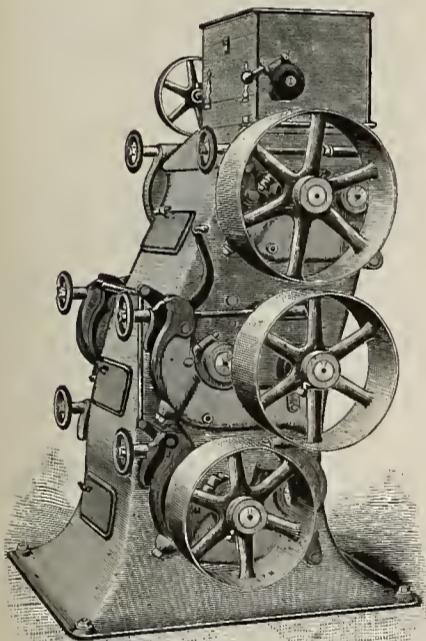
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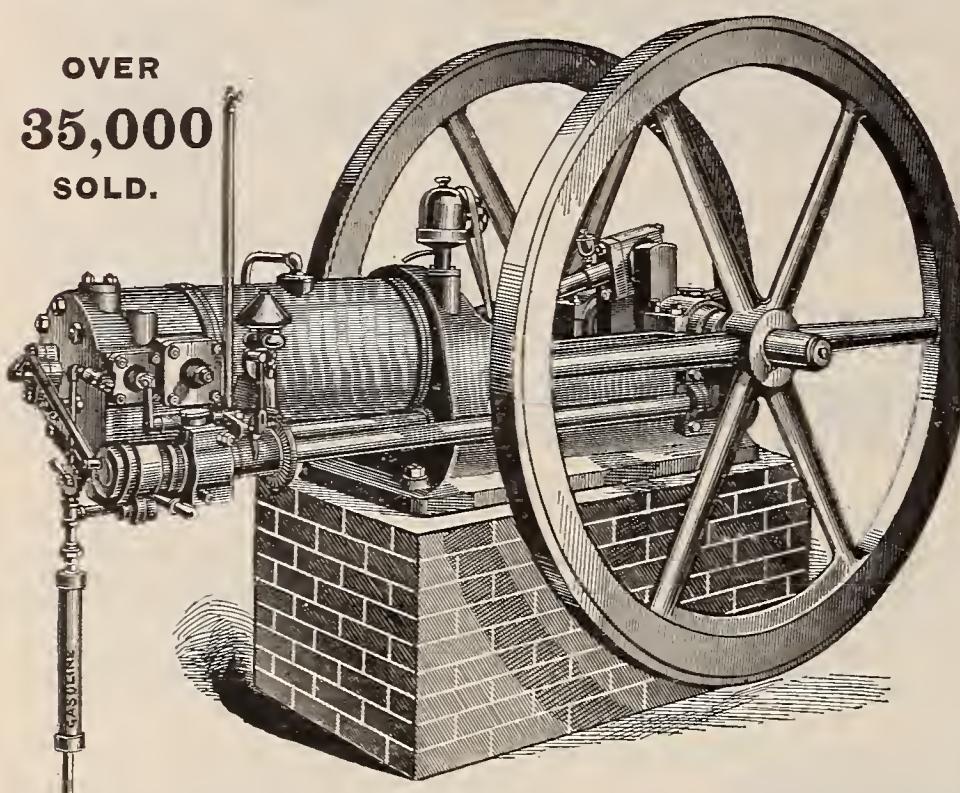
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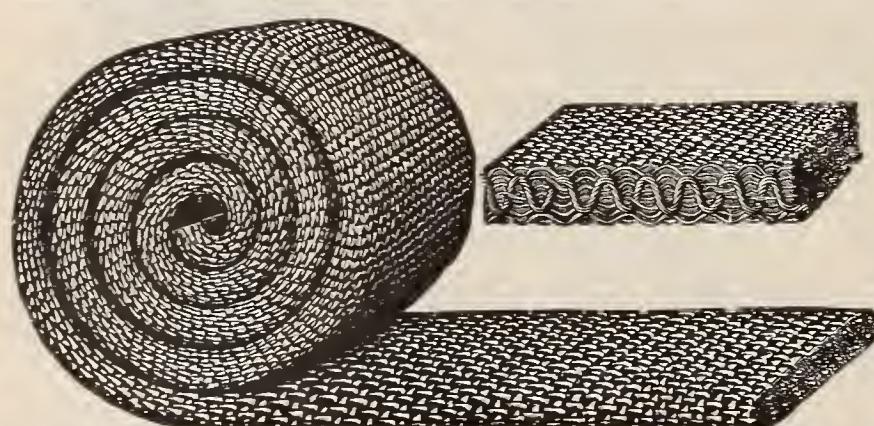
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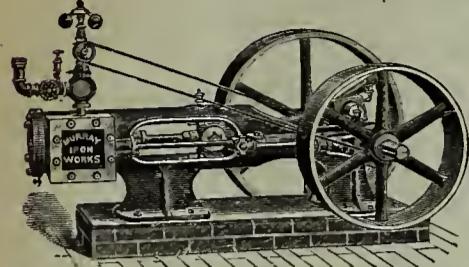
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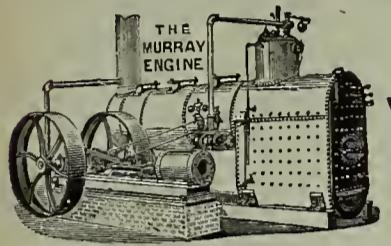


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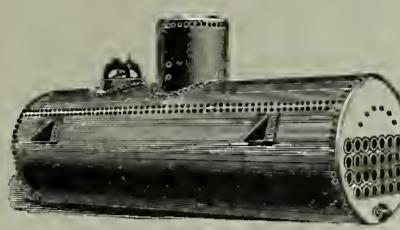


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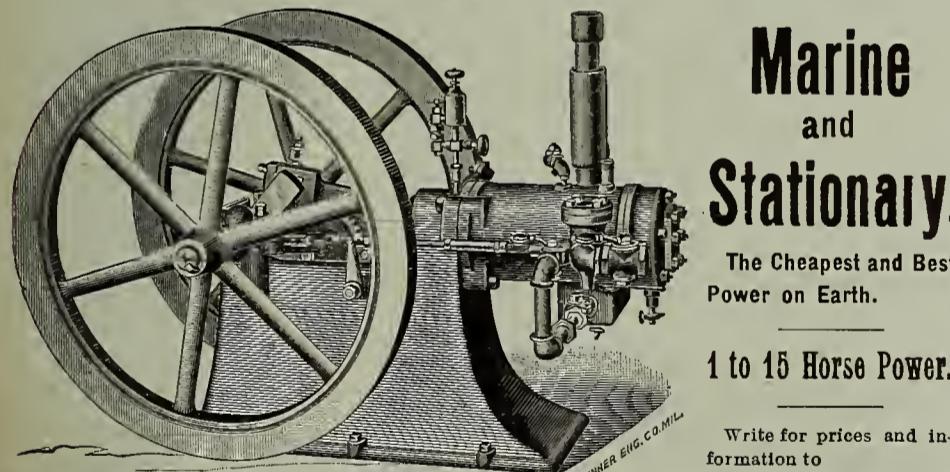
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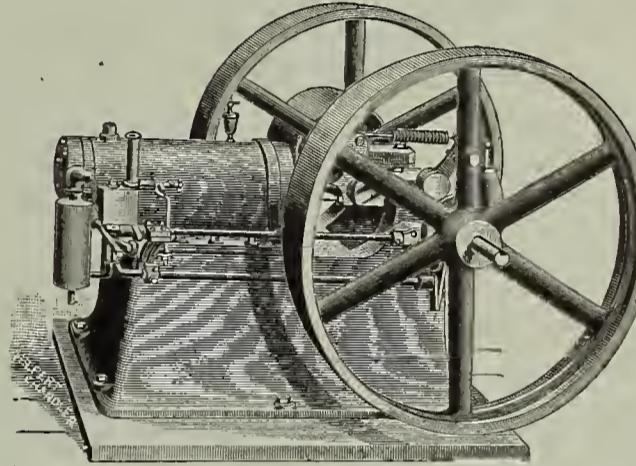
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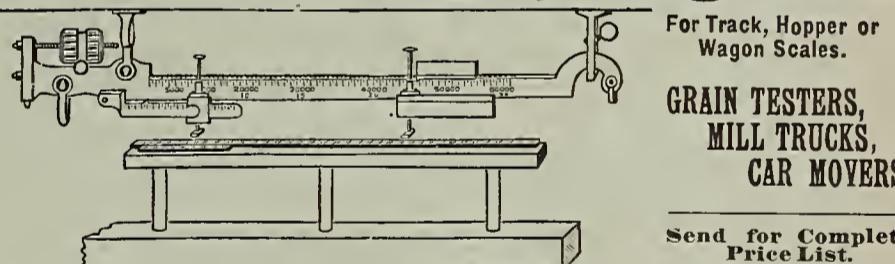
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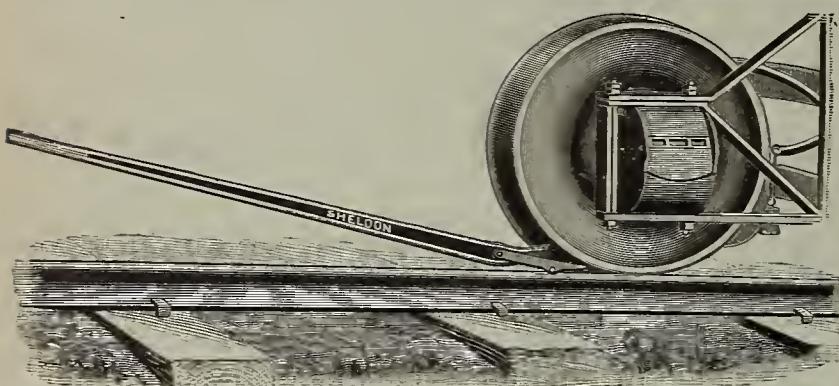
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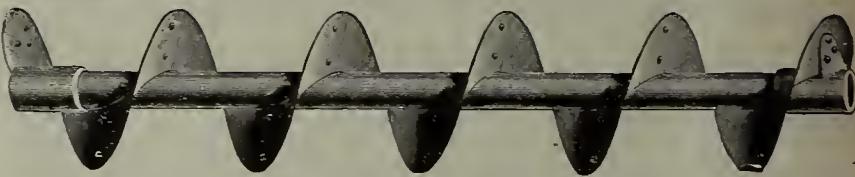
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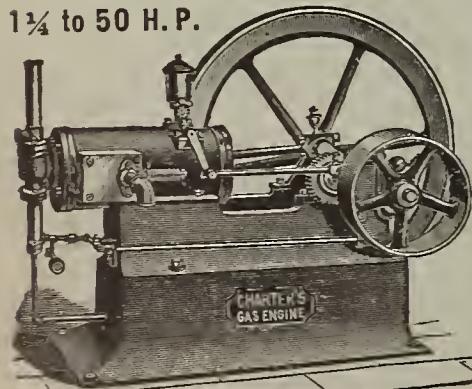
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